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JACOB RIIS PARK
GATEWAY

NATIONAL RECREATION AREA • NEW YORK / NEW JERSEY

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development concept plan / environmental assessment

draft
june 1989

JACOB RIIS PARK
BREEZY POINT DISTRICT
GATEWAY NATIONAL RECREATION AREA · NEW YORK

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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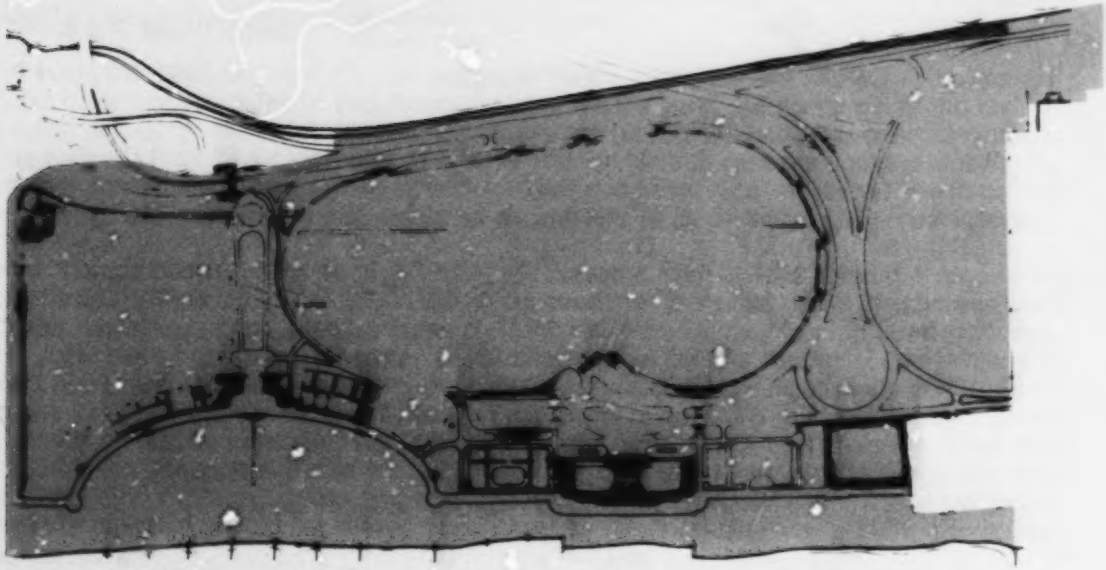
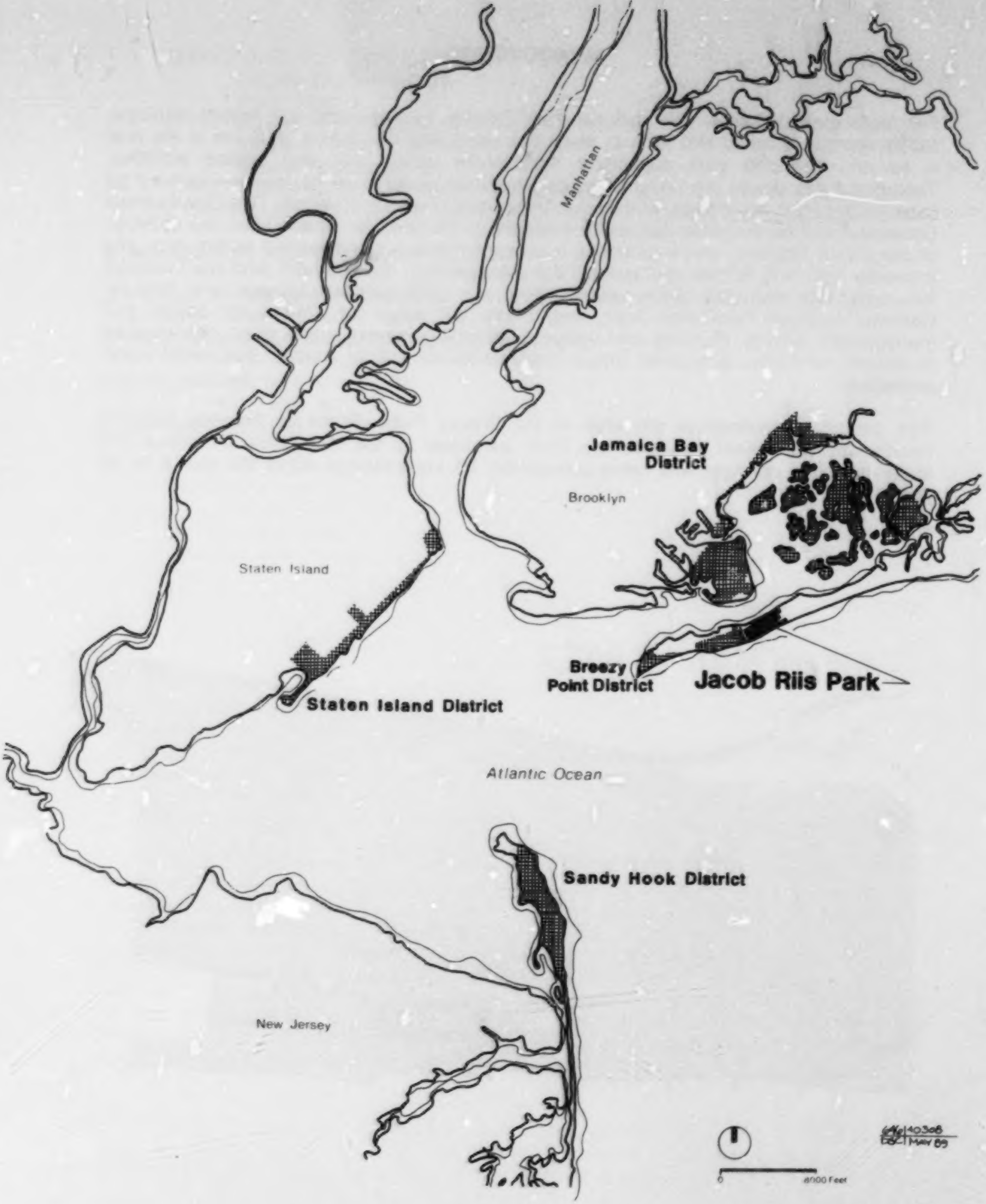
INTRODUCTION

For more than a decade the National Park Service has operated the former municipal facility known as Jacob Riis Park in much the same way that it was operated in the past – as an oceanside park supporting high-density beach use and related activities. Throughout this period the aging buildings and other recreational facilities within the park have continued to deteriorate, and use patterns have gradually changed. This *Development Concept Plan/Environmental Assessment* addresses the need for rehabilitation and redesign of the park's facilities, and it proposes improvements to support current visitor uses and interests. The DCP refines and updates the management, development, and use concepts for Jacob Riis Park that were established in the 1979 *General Management Plan* for Gateway National Recreation Area, and it sets the stage for site-specific design and management actions. Planning and design guidelines prepared at this stage can be used to ensure continuity, to monitor future implementation, and to conduct post-construction evaluation.

This project is confined to the area of the Breezy Point district of Gateway National Recreation Area known as Jacob Riis Park, as shown on the map below. Proposals are limited to those changes that could conceivably be implemented within the next 5 to 10 years.

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Location Map

United States Department of the Interior
National Park Service

BACKGROUND

Gateway National Recreation area was established by an act of Congress on October 27, 1972 (PL 92-592; 86 Stat. 1308) to "preserve and protect for the use and enjoyment of present and future generations an area possessing outstanding natural and recreational features." Following its establishment, the recreation area was the subject of a large-scale planning effort, which began in 1975 and culminated in 1979 with the publication of the *General Management Plan* and *Final Environmental Statement*. The parkwide *General Management Plan* established management zones, resource management strategies, and development and use concepts for all of the areas of Gateway, including the Riis Park area of Breezy Point. The GMP recognized Riis Park as the "major park attraction at the present time" and described it as featuring "a mile of ocean beach and a highly developed back-beach area" including a concrete boardwalk. The GMP envisioned that Riis Park would continue as a beach facility with structured recreational activities and would be the most intensively used portion of Breezy Point, particularly during the summer. It did not envision changes in the location or configuration of existing facilities but did recommend significant modernizing improvements.

Since the completion of the GMP, a number of studies have been done on the condition of resources at Riis Park, the work and costs that would be involved in their rehabilitation, and what actions are needed to support and enhance recreational uses and use patterns at the park. A *Draft Development Concept Plan/Environmental Assessment* for Jacob Riis Park/Fort Tilden was completed in February 1986. That document was prepared at the same time that a report on the condition of the Riis Park bathhouse, the park's central facility, was being finished. Because the apparent cost to rehabilitate the entire bathhouse was estimated to be at least several million dollars, it was decided that the National Park Service would seek a private sector partner to accomplish the rehabilitation of this historic structure under the historic property leasing program.

Although the 1986 DCP/EA did not designate specific uses for the Jacob Riis bathhouse, it did state that "because of Riis Park's isolated location and the shortness of the bathing season, the economic feasibility of any adaptive use [of the bathhouse] is of some concern. The National Park Service expects to receive and will have to consider some proposals that contain some nontraditional park activities." That document also expressed the hope that a public/private partnership that would be satisfactory to all parties could be established.

After the completion of the 1986 DCP/EA, the National Park Service offered a request for proposals (RFP) to identify a historic lessee/concessioner (hereafter called the concessioner) for the rehabilitation and adaptive reuse of Jacob Riis Park. After screening three proposals, the submission from Halper Associates was accepted as the proposal most compatible with NPS objectives and most economically feasible. After a series of negotiations and revisions to the original submission, the National Park Service produced a revised *Development Concept Plan/Environmental Assessment* in March 1988, which combined the 1986 park rehabilitation concepts with the concessioner's proposal to add an aquatic theme park and amphitheater. Following public and agency review of the 1988 DCP/EA, it was concluded that the proposal should be revised because of its effect on automobile traffic and related concerns.

The National Park Service has since engaged in an additional series of negotiations with Halper Associates to produce a more acceptable proposal. As a result, the amphitheater proposal has been eliminated, and the aquatic park proposal scaled down and relocated to the southwestern end of Jacob Riis Park. These changes are presented in this 1989 *Development Concept Plan/Environmental Assessment* as the proposal. This proposal would establish the public/private partnership recommended in the 1986 DCP/EA, would accomplish the rehabilitation of the bathhouse and the other park historic resources, and would expand recreational opportunities for all park visitors. Although some of the proposed developments would not be appropriate in most units of the national park system, they are consistent with the GMP's general objectives and use concepts for Riis Park and they are compatible with existing developments and recreational uses in this beachfront/boardwalk environment. All new developments would be designed to be sensitive to the historic character of the park.

The proposals in the 1986 DCP/EA that relate to the Fort Tilden section of the Breezy Point district have not changed and are therefore not reprinted in this document.

PLANNING CONTEXT

SITE HISTORY

The western portion of the Rockaway Peninsula (Breezy Point district), which is the site of Jacob Riis Park, was formed by the accretion of sand. The area that comprises Jacob Riis Park did not exist above the high water line until the last quarter of the 19th century.

Both the defensive and the recreational potential of the peninsula were recognized during the 19th century. During the War of 1812 the army constructed a blockhouse on the west end of Rockaway Beach. Its location was, in all likelihood, to the east of present-day Jacob Riis Park. Grandiose plans for a landscaped park on the peninsula with hotels, pavilions, bathing accommodations, a race course, and a theater were drawn up in the late 1870s. However, these plans were never fully realized. Some development occurred on the peninsula beginning around 1880: A hotel was constructed between the present 111th and 116th Streets (1881); a boardwalk was constructed from Holland to Seaside (1893); an electric trolley line was completed from Far Rockaway to Neponsit (1897); and tents and frame buildings were erected west of Neponsit (ca. 1900).

In the mid-19th century, the Treasury Department requested transfer of some property currently in Fort Tilden for the Rockaway Point Lifesaving Station, which moved from Barren Island to Rockaway Point. The secretary of war approved the transfer, asserting that the area could still be fortified by the military if the need arose. Little is currently known about the location of a series of lifesaving stations on Rockaway Point. Federal personnel probably opened the first station on the point in the mid-19th century and operated the facility until well into the 20th century. The men who manned the station were known to have rescued sailors and salvaged merchandise from a number of ships that ran aground in the 19th century.

In 1912 the city acquired the privately held Hatch tract, intending to establish a public waterfront park near Rockaway Point. Commonly called "Seaside Park," the undeveloped area became known as Telewana Park sometime after acquisition by the city. After the death of Jacob Riis in 1914, the area was renamed to honor the journalist, author, and reformer who had taken a special interest in acquisition of the park. However, Jacob Riis Park did not become a reality until the 1930s. Before World War I the city granted a benevolent organization a parcel of land there to construct a hospital for indigent tubercular patients. During the war, military exigencies became a priority item on the Rockaway Peninsula; the navy leased the site in 1917 and constructed Rockaway Naval Air Station at Rockaway Beach in 1918.

A year later the first successful air crossing of the Atlantic originated from the Rockaway Airfield. The navy began testing four Navy-Curtiss (NC) aircraft in the winter of 1918-1919. Glen Curtiss, the aeronautical engineer who designed this early flying boat, attended the testing program, as did Richard E. Byrd, who developed the instruments and navigational procedures ultimately used on the successful trans-Atlantic flight. The four NC planes left Rockaway on May 8; only one of them completed the 23-day crossing to Plymouth, England, by way of the Azores and Portugal. Soon thereafter, the navy forfeited the Rockaway lease. In vain they sought permission to use Miller Field (Staten Island), then underutilized by the army. The navy did not have another permanent station in the vicinity until 1941, when it moved to Floyd Bennett Field.

When New York City reacquired the area in 1923, it began to stabilize the future Riis Park lands with a system of groins attached to the bulkhead at the eastern end of the property. In 1927, city engineers installed a similar system at the western end. The city began construction of a bathhouse at Riis Park in 1931, and an ambitious program of recreational development took place there during the following six years. Much of this development was accomplished with Works Progress Administration funding and labor under the administration of Robert Moses, who had become commissioner of the New York City Department of Parks in 1934. Playgrounds, handball courts, parking facilities, beach shops and food bars, lockers and showers, a boardwalk and promenade, areas for ping pong, horseshoe pitching, paddle tennis, and shuffleboard, and an 18-hole golf course were opened to the public in 1937. On July 3 of that year the Marine Parkway Bridge was dedicated, putting Riis Park within a 45-minute drive of most of Brooklyn and an hour from Manhattan.

BRIEF DESCRIPTION OF JACOB RIIS PARK

The Breezy Point district, which lies south of Jamaica Bay on the western end of the Rockaway Peninsula, contains approximately 1,600 acres and 4-1/2 miles of ocean beaches. Included in this district are the popular Jacob Riis Park, the lands and facilities at Fort Tilden, and the beachfront properties to the immediate east and west of the Breezy Point Cooperative.

All city lands, specifically Jacob Riis Park, West Beach, and the Breezy Point Tip, have been transferred to the National Park Service. New York City retains jurisdiction over the major roads in and around Riis Park and a right-of-way extending 10 feet south of this road. The National Park Service exercises concurrent law enforcement jurisdiction over those lands formerly owned by the city and the army.

Site Description

Initially developed by the city of New York, Jacob Riis Park features 1 mile of ocean beach and a highly developed back-beach recreation area. The beach is divided by wooden pilings and rock jetties into 14 bays. In the back-beach area is a concrete boardwalk extending the full length of the beach. Centrally situated is the historic Riis Park bathhouse, which was originally developed with public showers, locker facilities, a public restaurant, concession booths, refreshment bars, and a sun deck. These facilities are now closed because of health and safety reasons. Currently, the bathhouse provides lifeguard facilities, restrooms, a ranger station, a U.S. Park Police substation, a first-aid station, food concessions, chair and umbrella rental, and maintenance storerooms. The bathhouse is flanked by basketball, paddle-tennis, and handball courts, ballfields (one of which is lighted), and play equipment. Approximately 2.5 acres of lawn and landscaped areas are used for family picnicking. Two historic structures in the mall area house food concessions, chair and umbrella rental, restrooms, and first-aid facilities. In addition to these larger facilities, there are three small food concession stands along the boardwalk. Completing this developed back-beach area is an 18-hole, par-three golf course. An approximately 9,000-car parking lot covers the remainder of the site. Riis Park was placed on the National Register of Historic Places on June 17, 1981 (see appendix A for documentation).

User Groups

The attributes of the New York population are important determinants of how Riis Park functions. This population is a conglomerate of widely diverse groups, differing in age, income, race, ethnicity, values, and activity preferences. Its diversity is reflected in the user groups at Riis and is quite different from the typical image of users of other national parks. Riis Park serves groups of people under conditions of tremendous density, another characteristic typical of urban situations and different from most national parks.

Provided they can be part of a smaller, similar group of people in an identifiable location, urbanites are remarkably tolerant of the diverse values of other groups. Over the course of many years, subareas of Riis Park have evolved as places where people of similar backgrounds and values gather. The resulting social ecology is as important to the success of a dense urban recreation center as the ecosystem is to a natural environment.

User groups situate themselves both spatially and temporally within specific sections of the park. The territorial limits are both east-west as roughly defined by the jetties (bay 1 through bay 14), and south-north as determined by beach, boardwalk, sports areas, and landscaped areas. Most groups establish a home base in one area from which they come and go during the day to use specific facilities or attractions throughout the park.

Family groups are generally less mobile than most other users because of their need for a permanent beach space, which is especially important when the area becomes crowded. The elderly also tend to remain in one place while at the park. For singles or small groups, permanence is less important; strategic locations gain precedence. Small groups often move several times to gain better positions on the beachfront.

Certain areas attract certain age groups. Adolescents and young adults may wander to the basketball courts or congregate on the boardwalk. Families as units play few games, and ocean wading is their most prevalent group activity. Two playground areas near bays 2-3 and 5-6 are provided for children. Shaded locations near open grassy areas are most popular with family groups.

Approximately 2,175,778 people visited Riis Park in 1987. Recent visitation has fluctuated from 3,985,703 visitors in 1983 to 2,159,715 visitors in 1986, with only a slight increase in 1987. In 1988 visitation declined to 1,099,489 because of the coastal medical waste concern.

Natural Resources

The beach and back-beach areas of Jacob Riis Park are intensely developed and interspersed with lawns and landscaped areas. The beach area contains no vegetation or dune formations. This beach is part of a dynamic system and varies in width from year to year depending on the annual weather. Ocean-borne sand tends to move westward along the Rockaway Peninsula. This littoral drift removes sand from the beaches to the east, including Riis Park, and causes accretion of the beaches at the Breezy Point Tip. There was concern about erosion of the beach in front of the bathhouse after a large groin was constructed in the early 1980s at the eastern, or updrift, edge of the park. However, it appears that this beach is historically narrow and is relatively stable for the long term. This could be due to the recent history of shoreline protection and sand nourishment all along the Rockaway Peninsula. There are short-term fluctuations in the beach, which vary with the frequency and magnitude of storms. Beaches are generally narrower in the winter, but severe storms can cause erosion at any time.

The bathhouse is protected from the 100-year flood by the concrete boardwalk, which serves as a dike or levee. The Federal Emergency Management Agency estimates the 100-year flood elevation at 9.8 feet, and the boardwalk is over 11 feet. Although the bathhouse is technically out of the 100-year floodplain, during storms wind-driven waves have flooded it through the boardwalk entrances.

The crescent-shaped 30-acre parcel at the eastern edge of Riis Park contains three habitats/vegetation cover types: open grassland, mixed grassland/shrub-tree thicket, and mowed grass. The mowed grass area at the southern end contains ballfields. The open grassland habitat is dominated by grasses such as American beachgrass, silver grass, little bluestem, and salt hay and forbs such as lance-leaf coreopsis, seaside goldenrod, beach wormwood, beach heather, pinweed, yucca, and evening primrose. This area also contains scattered clumps of beach plum, bayberry, and Japanese black pine, plus larger aggregations of black willow and eastern cottonwood. The mixed grassland/shrub-tree thicket is evenly divided between open grassland and developing thickets of woody shrubs and trees. These woodland areas contain early successional thicket dominated by black cherry, bayberry, beach plum, smooth sumac, staghorn sumac, and Japanese black pine, with some red cedar and American holly beginning to seed in. These areas contain components of the native coastal sand dune/bayberry thicket community and native coastal woodlands.

An evaluation of this habitat area was conducted by the park staff during one week in April 1989. Ninety five species of plants were identified, and 24 bird species and one mammal species were sighted. Although the survey was limited in time, it appears likely that the site provides feeding and resting habitat for many species of birds during the year, including those migratory species that would appear later in the spring or fall. The Rockaway Peninsula is also an important corridor for various species of migratory butterflies, and several locally rare or uncommon species have been recorded at the site during the last three years. In general, the site contains a relatively large number of plant species and is utilized by a diversity of migrant and breeding birds.

In a March 5, 1984, letter the U.S. Fish and Wildlife Service determined that, except for occasional transient wildlife, no federally listed or proposed endangered or threatened species under their jurisdiction are known to exist in the project area. The bald eagle and peregrine falcon, which are federally listed as endangered, do not nest at Riis Park but may migrate through the project area. The piping plover is federally listed as a threatened species and is found nearby at the Breezy Point Tip and Fort Tilden beaches, but is not known at Riis Park. The Fish and Wildlife Service confirmed this information on April 24, 1989.

Other species of concern that exist on the Rockaway Peninsula, although they are not known to nest in Riis Park, include one species listed by the state as endangered – the least tern; three species listed by the state as threatened – the osprey, northern harrier, and common tern; and two species listed by the state as special concerns – the common barn owl and short-eared owl. The diamondback terrapin is also present on Rockaway Peninsula areas other than Riis Park and is listed by New York State as a special concern.

MANAGEMENT ISSUES AND OBJECTIVES

ISSUES

Historic Resources

Jacob Riis Park is a designated historic district representative of public park development in the United States. It was listed on the National Register of Historic Places on June 17, 1981 (see appendix A), because its buildings and grounds have survived relatively unaltered since 1937 and they remain good examples of the prevalent aesthetic design of the 1930s. Therefore, the entire facility, including the landscape design, is considered a historic resource. The bathhouse is probably the park's most significant single feature because of its visual dominance, central location, and role as focal point for recreational services. It is also the facility most in need of intensive rehabilitation.

The 1986 NPS "Historic Structures Report, Architectural Data Section, Jacob Riis Bathhouse Exterior" and the 1984 Beyer, Blinder, Belle "Existing Conditions Report, Jacob Riis Bathhouse" document the condition of the bathhouse complex. According to the reports, the cumulative effects of the harsh maritime environment and deferred maintenance have left building finish and structural elements in various stages of deterioration. Structural damage has occurred where thermal forces have caused uncontrolled cracking due to the lack of sufficient vertical control or expansion joints. Cracking is extensive at the beach pavilion, moderate at the entrance pavilion, and almost negligible at the east and west wings and court-enclosing walls.

Water damage varies and is prevalent throughout all the buildings, with the beach pavilion being the worst. In general, water damage at the exterior masonry walls is evidenced by cracked and spalled brick, cracked and spalled cast stone detailing with exposed rusted reinforcing bars, cracked interior glazed tile, and rusted masonry pier anchors and lintels. Water has damaged the beach pavilion concrete canopies causing cracking and spalling and exposure of some reinforcing bars. Roof gutters at the east and west wings are leaking, causing sections of the wooden eaves to rot.

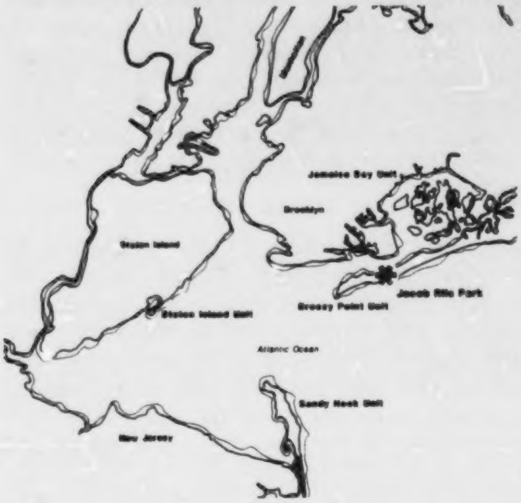
The mechanical system is in generally good condition throughout the complex. However, the entire electrical system, with the exception of the conduit buried in concrete, needs to be replaced. It should be apparent from this summary of the conditions reports that if the bathhouse is to be saved, extensive and costly repairs will be required.

The Beyer, Binder, Belle report estimates that the minimum investment required to make only the most necessary repairs to the bathhouse is roughly $500,000 (net 1985 dollars). Even at that sizable amount, most of the building complex would need to be "mothballed" or sealed off from public access. The mothballing of areas under this minimum investment would include the entrance pavilion and the entire second floor of the beach pavilion. The cost of more substantial repairs and improvements could range from $2 million to $7 million (net 1985 dollars) depending on the extent of change envisioned.

In addition to the bathhouse, the park's game courts, playgrounds, sidewalks, parking lot, and landscaped areas all have deteriorated and require repair and rehabilitation.

Given the sizable cost, the National Park Service cannot finance major rehabilitation and on-going operation of Jacob Riis Park. Rehabilitation will depend on private sector involvement in the rehabilitation and adaptive use of the facility. In addition, because of Riis Park's isolated location and the shortness of the bathing season, the economic feasibility of any adaptive use of the bathhouse alone is of some concern. The National Park Service will have to consider proposals that contain some nontraditional park activities.

Access and Circulation



Jacob Riis Park is about 25 driving miles from midtown Manhattan. The major mode of access, used by about 84 percent of park visitors today, is the automobile. About 16 percent of current visitors arrive by public transportation.

Automobile Access. Flatbush Avenue and Cross Bay Boulevard provide north/south access to Rockaway Peninsula and Jacob Riis Park, with toll crossings over Rockaway Inlet and Broad Channel, respectively. These arterials have full access to the Belt Parkway in both directions, and they continue into the central portions of Brooklyn and Queens. Traffic using Cross Bay Boulevard to the Cross Bay Bridge must then use one of several east/west streets to reach Riis Park; Beach Channel Drive is the most direct route off the bridge. Flatbush Avenue and the Marine Parkway Bridge provide the most direct north/south access to the park.

The Marine Parkway Bridge has variable direction lanes, with additional lanes provided for peak inbound or outbound vehicular flows. The Cross Bay Boulevard Bridge has three lanes (nonvariable) in each direction separated by a raised median. A new Cross Bay Boulevard Bridge is being constructed to replace the existing bridge, and interim traffic delays may occur during the construction period.

Access into the beach parking area is funneled into a single toll plaza slightly west of the Rockaway Beach Boulevard traffic circle. The plaza at the parking area generally operates with a maximum of four toll booths, although six booths exist. Traffic movements approaching the plaza can be somewhat congested when traffic volumes are high from the access roads leading to the park. The parking area contains approximately 9,000 spaces.

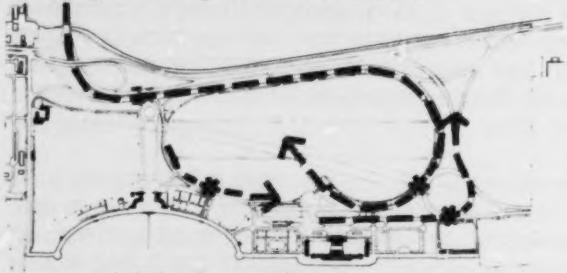
Appendix B shows summer Sunday volumes and a.m. and p.m. peak hour travel conditions.

There are advantages for people in the metropolitan area who have access to automobiles. One is economic – the cost per trip will soon be $5.50 per automobile for bridge toll and parking fee regardless of the number of passengers, whereas round-trip costs are usually $2.00 per person for public transportation from most city locations. The automobile also makes it easier for people to bring recreation equipment to the park.

The transition from a car to the park is difficult and hazardous. Those people who have much equipment to unload have only one designated drop-off zone available in front of the bathhouse. Although the concept is good, the location is not close to where many people settle. Therefore, many people stop inside the parking lot on the southwest corner, where space is inadequate, for unloading equipment and passengers.

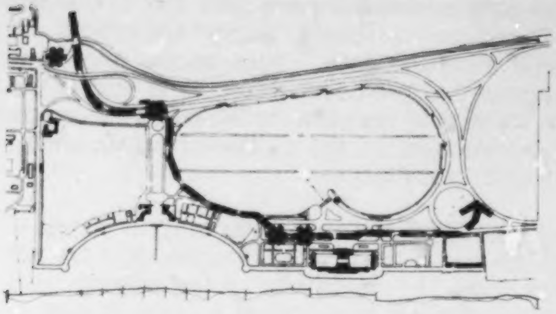
There are also problems for people who park their cars and make their way to the park. Pedestrian exits from the lot are not marked, are not visible from a distance, and are not always related to pedestrian paths within the park. The orientation of the parking rows requires most pedestrians to cross several aisles of traffic after finding a place to park.

Along the southern edge of the lot there are two areas of major conflict where pedestrians must cross a steady stream of traffic. On the southwestern half the conflict is inside the lot and most intense on weekend afternoons because pedestrians entering or leaving the park must cross all traffic headed toward the automobile exit. On the southeastern half the conflict is outside the lot where pedestrians headed toward the eastern part of Riis must cross all traffic entering and leaving the parking lot. Although there is an underpass on the eastern end of the bathhouse, one Sunday between 500 and 1,000 people were counted crossing a steady stream of traffic.



The parking spaces in the lot closest to the beachfront areas frequently approach capacity shortly after 12:00 noon. The remainder of the lot reaches a peak accumulation of approximately 60 to 75 percent between 2:00 and 3:00 p.m. on peak weekend Sundays before beach visitors begin to leave the park.

Bus Access. Getting to Riis Park by public transportation is difficult, requiring several changes of subway and bus. For most people in New York City to reach the park by public transportation, they must take the subway to the Flatbush Avenue stop at the end of an IRT line in Brooklyn. This station is relatively easy to reach from Manhattan and Brooklyn. From here people must transfer to a bus going to Riis Park. There are no signs in the subway station informing people how or where to make the transfer.



Although there are four bus stops used by people arriving at Riis, only two of them are clearly associated with the park. The first stop, immediately after the Marine Parkway Bridge, gives no indication that it provides access to Riis. Passengers who get off here tend to be young people who are headed for the western end of the beach and who already know they must cross the highway and walk a half mile down a service road. There are no directional signs available. The second stop is at the end of the mall and is relatively unused. The third and fourth stops are centrally located near the bathhouse and are the most heavily used. The eastern end of the park does not have a stop.

There is no information telling visitors where they are in the park after getting off the bus, what facilities are available, or where to catch a return bus home.

For the return bus trip there are only two locations just west of the bathhouse where people can board. This bus stop consists of a maze of steel piping for keeping people in line while they wait. There is no place to sit and no shelter from sun or rain. In recent years, bus service has been frequent enough that only one of the five aisles of the maze is ever filled with waiting people. On a typical Sunday between 60 and 70 people were observed waiting at this bus stop at any one time.

Characteristics of bus riders do not vary greatly from those who arrive by car. In both cases about half come in groups of three or less. The greatest noticeable difference is that bus riders do not bring much equipment compared to car riders. They tend to bring no more than a satchel and towel, although occasionally people bring folding chairs and beach umbrellas.

Bicycle Access and Circulation. Although cars and buses are used simply to deposit passengers at the park, bicycles can be used either to get someone to the park or for recreational riding in the park.

The major access for bicycles, as for vehicles, is from the Marine Parkway Bridge. The only nonvehicular path on the bridge is a 6-foot-wide walkway about 20 inches above the road surface on one side of the bridge. This is used by pedestrians and cyclists going in both directions, although signs instruct people to walk their bicycles.

Once across the bridge, it is not apparent how to get to the park. The safest and most direct route is not the same as the vehicle entrance route. Instead of taking the highway, it is better to take the westbound local road, cross it at the traffic light, and enter the park through Fort Tilden and down 169th Street or along the northern edge of the golf course.

Because bicycles are portable and easily stolen, people keep them close by and, as a rule, leave them in bicycle racks only if the racks are visible from where they are stationed. The only bicycle rack at Riis that is consistently used is at the extreme western end of the boardwalk where many young people congregate. Other bicycle racks are not visible from active use areas and are usually empty. However, bicycles are frequently observed inside sports areas locked to chain link fencing or to the boardwalk railing. Compared to the standard bicycle racks at Riis, fences and railings are more secure places to lock bicycles because it is possible to lock the frame itself to a support.

Within the park, cyclists may ride on footpaths and service roads marked as bikeways, but must walk their bicycles in all other areas. Recreational riding is not particularly good within the park because the distances are short and the paths are segmented and frequently crowded.

Park Information

The ease of acquiring information and its applicability to the particular users needs are the critical characteristics of a park's information system. Park users typically need three kinds of information while visiting a national park: (1) "navigational" or wayfinding information – signs, landmarks, paths, maps, staff, etc., that make it possible for people to find *places* they are looking for; (2) activity information – brochures, signs, newsletters, or other methods that tell people about what they can *do* in the park and any other information that would help them to participate in specific activities; and (3) interpretive or educational information – all the best media and presentation methods that national parks use to enrich recreational visits by sharing knowledge about the significance of places, processes, people, and events. There is a tendency to concentrate attention and resources on the last type of information, relegating the others as collateral duties. The result is omission, inconsistency, and/or contradictions, leaving park visitors uninformed about opportunities at the park.

The system of providing users with information about Riis Park, from how to get there to how to find the restrooms, can be improved. People need directional signs when arriving by car, bicycle, or subway and bus; directional signs for car drop-off areas and at entrances to the park from the parking lot; maps showing locations of facilities within the park; sign identification of facilities and concessions; and information about programs and activities available at Riis Park, Fort Tilden, and other areas of Gateway National Recreation Area.

The lack of information has, in the past, been relatively unimportant because Riis has been a self-contained entity patronized by regular users. However, as new users are attracted to Riis as a unit of Gateway and the rest of the Breezy Point peninsula and Floyd Bennett Field are used as parkland, the need for basic orientation and information will become greater.

Visitor Comfort

Because there are no shaded picnic areas at Riis Park, indiscriminate picnicking takes place in landscaped areas with ornamental plantings that are not designed for visitor use. The result is destruction of vegetation and overcrowding in those areas.

It is a common perception that people come to the beach to be in the sunshine and to swim and play in the ocean. While true, it is also an incomplete picture. People using outdoor recreation sites need the simple amenities of shade, water, and places to sit comfortably, preferably with a view of some interesting activity or landscape. The heat and humidity of the summer climate at Gateway make the need for such amenities even more critical.

Shade. Because of soil, microclimatic conditions, and the nature of the developed landscape at Riis Park, there are very few shaded areas for park users. People therefore occupy areas not intended for active use or try to create their own makeshift shading devices. Shade can be used creatively as a magnet to attract people to centers of activity and program sites or to add colorful highlights to the relatively drab landscape.

Water. In addition to the water provided by the ocean, four needs for potable water have been identified.

> *Barrier-free drinking fountains* need to be provided for young children and handicapped persons.
>
> *Water spigots* are needed so that people can fill containers they carry to the beach or to picnic sites. In emergencies, people would be able to extinguish small fires that have accidently been set.
>
> *Water facilities* are needed for people who wish to wash off sand and salt before dressing for the trip home. Pull-showers are common fixtures at many ocean beaches and have existed at Riis Park in the past. Such facilities are needed at most beach/boardwalk access points.
>
> Access to *water sprays* for safe and creative play is needed for park users who choose to picnic relatively far from the shoreline. The ocean is an existing but potentially dangerous recreation resource, particularly to young children who are not aware of its power.

Seating. The need for seating varies with activity and place. There are no tables provided for picnicking at Riis Park. Many areas of the boardwalk are without seating of any sort.

> *Picnic tables* with attached seating are needed throughout the park, but primarily in areas where groups of four or more people congregate. Some tables should be movable so that people can control their arrangement and location according to group size and personal preference. An experiment conducted at Riis Park in 1978 showed that tables left unattached would be moved about regularly but were never removed from the general picnicking area.
>
> *Benches* are needed in areas where viewing (recreational activities or scenery) is the primary activity. At Riis Park, sections of the boardwalk are unused because seating is not available. Some benches could be fixed in place where the orientation is typically in one direction, particularly for sports and recreation. Benches should have backs in areas where people are likely to sit for any length of time.
>
> *Tables and chairs* are needed to provide the kind of seating flexibility required in areas where food is served to individuals and small groups. Loose chairs and tables would make it easier to conduct programmed activities without elaborate

preparations. Shade can easily be provided by table umbrellas that would add a splash of color for easy site identification.

Recreational Sports Facilities

Recreational sports, including handball, paddleball, basketball, softball, golf, shuffleboard, and paddle tennis, have always been popular at Jacob Riis Park. Fluctuations in levels of participation in a particular sport can probably be attributed primarily to the condition of the facilities; other more subtle factors such as current popularity (e.g., paddleball vs. handball) or the availability of equipment (shuffleboard) also have an effect. Some of the sports attract spectators as well as players, particularly handball and paddleball. Softball and basketball also attract spectators when a particularly good game is being played. Provisions for spectators at any of the field or court areas or along the boardwalk are very limited, and spectators sometimes interfere with the game.

Most of the court areas (particularly basketball) are in need of repair. The importance of providing and maintaining top-quality facilities goes beyond the effect on the quality of play possible, but perhaps more significantly it silently conveys the message that the National Park Service respects the park user's choice of recreational activity and cares about the quality of their experience at the park. Some staff additions to provide more supervision of recreation activities and facilities would assure better care for those facilities. The provision of lighting would increase the hours of use on the play courts.

Children's Environments and Activities

Families with young children constitute a significant portion of the visitor population at Riis Park. These families tend to spend the entire day in the park, setting up a "home base" in a shaded area – if they can find one. Safe play areas close to these sites make it easier for parents to supervise their children's play. Two areas of Riis Park are designated as playgrounds, and each includes some play equipment such as swings and climbing apparatus. As it is, these playgrounds are of very little use to children. They provide only the most limited resources for creative and enjoyable play activity. The value of these areas is questionable on several grounds; they lack play opportunities other than physical, they include dangerous moving equipment such as swings and teeter-totters, they have dangerous hard paved surfaces, and they lack paced alternatives for children at different development levels. Loose parts, such as props, tools, and costumes that children might use as they see fit, cannot be provided without supervision. The recent emphasis by child psychologists on the importance of play in children's social, physical, and intellectual development suggests that we should provide more creative and adventure play areas to supplement traditional physical play.

Young children seldom play without the supervision of a parent or older sibling. It is important to ensure that places where small children play can be easily monitored visually and that comfortable seating for supervising adults is considered. Comfortable seating (benches should be carefully selected for comfort and should have backs and arm rests) and a choice of sunny or shaded locations will likely extend the length of time that adults will spend in the play area, a benefit to both parents and children. Some seating should always be provided near the outside edges of the play area to allow passersby to watch the children play.

OBJECTIVES

Historic Resource Preservation

To halt the physical deterioration of historic resources at Riis Park.

To retain the character of Riis Park structures, landscape design features, and recreational facilities from the Robert Moses era of park development.

To rehabilitate Riis Park as a major recreational use facility through a public/private partnership.

To identify adaptive reuses of the bathhouse and other facilities so that these historic properties may be more fully utilized, and their maintenance and preservation aided.

Access and Circulation

To simplify the process of unloading picnic and recreation equipment and moving from one's car into the park.

To improve public safety by eliminating pedestrian/vehicle conflicts wherever possible.

To provide information at bus stops to orient arriving visitors and to post bus schedules to facilitate their return trip.

To make bus waiting areas more comfortable.

To designate and mark paths and roads intended for bicycle use.

Park Information

To offer wayfinding, activity, and interpretive information to park users.

To ensure consistency in the park information system – colors, typefaces, placement, symbols, etc.

Visitor Comfort

To provide more shade, water, and a variety of seating places throughout Riis Park.

Recreational Facilities

To continue the tradition of recreational sports activities at Riis Park and to provide safe facilities for competitive games.

To create better places to watch sports activities throughout Riis Park.

To increase use of the athletic court areas by extending the hours of operation through lighting.

To provide facilities to allow a variety of performing arts programs at Riis Park.

To reestablish Riis Park as a major recreational facility.

Children's Environments and Activities

To provide a rich variety of play experiences that include opportunities for various forms of physical, social, and cognitive play.

To staff selected play areas with adult play leaders who can provide supervision and supply materials for creative play.

To allow a smooth flow of activity between areas for families and for children, with unobstructed visual contact between these areas.

To create pleasant microclimates for children and adults by providing areas protected from the wind that have a mixture of sun and shade.

To provide loose parts that a child can manipulate to shape a personal environment necessary for cognitive development.

To include water play as a separate area capable of being linked to nearby sand play areas.

ALTERNATIVES INCLUDING THE PROPOSAL

THE PROPOSAL

Overview

The 1979 GMP did not include a detailed DCP for Riis Park, but it did state that the location and configuration of existing facilities at Riis Park would be retained. This new proposal differs from the 1979 plan in that it involves the reallocation of space for different uses in some areas and the rearrangement of facilities in other areas. The overall concept is one of park renewal – a blending of the ambience of historic features with the liveliness of new activity.

This proposal is based on the creation of a public/private partnership, which would undertake the enhancement of the visitor experience for Riis Park users and the rehabilitation of the park's historic resources.

The concessioner would be responsible for rehabilitating the Riis Park bathhouse to the "Secretary of the Interior's Standards for Rehabilitation" to provide space for existing park administrative and operational functions as well as new public facilities. New facilities would include a restaurant and catering facility on the second floor of the beach pavilion and an interior court area. The first floor of the beach pavilion would house remodeled food services, a game arcade, and beach equipment rental concessions. The entrance pavilion would include park interpretive exhibits in the lobby. Locker rental and shower facilities for park users would be provided in the bathhouse. The east and west wings of the bathhouse would be rehabilitated to contain the various administrative support activities currently housed in those buildings, including the lifeguard center, park and city police substations, first-aid station, and public restrooms.

Two options are under consideration for the development of the 62,000-square-foot inner court area of the bathhouse. One would provide for seasonal use; the other would permit year-round use and would require the erection of a roof to cover the open inner court space. Under the seasonal use option the open court area would be developed and managed to reflect current recreational interests. Concepts under consideration include roller and ice skating in season, a competitive maze, movies, and a food court with an entertainment area. The year-round use option would involve a two-season operation, which would be compatible with the current beach traffic patterns. The enclosed court area would include exhibition space that would accommodate cultural and recreational events and an atrium with ethnic food concessions. During the nine-month winter season, advertised events such as conferences and trade, hobby, and educational shows would attract people to the park. During the three summer months, facilities and services would be oriented to the beach population – as a display and sales area for various commercial and public service products and services. The court area could also serve as a shelter for the beach population during summer storms, thus reducing or eliminating the current mass exodus during these occurrences which has been identified as a major source of traffic congestion.

The proposal includes two major new recreational elements – a 2-acre aquatic park, and an athletic complex with several ballfields, associated support facilities, and a group picnicking area. These facilities would all be developed by the concessioner and would operate on a fee basis.

The family-oriented aquatic park would be located on a back-beach site at the western end of the boardwalk and would feature pools of various designs, water slides and chutes, a lazy river, children's pools, and other features. It would also incorporate necessary amenities including fast-food service, lockers, showers, and dressing rooms. The slide and chute elements of the aquatic park would be stacked in a vertical configuration, and the towers supporting the access platform and slides would extend 55 feet high. Design would take into account the golf course and other nearby features in the historic district and would incorporate plantings to screen the park from adjacent activities. The aquatic park would accommodate approximately 1,200 people at a time.

The athletic complex would include six softball fields constructed in a fenced area on the open game field site east of the parking lot. The fields would reflect the highest design standards and would be maintained to attract industrial-level league and tournament play. They would have all the amenities associated with the sport, including night lighting, score boards, dugouts, bleachers, and water fountains. A food service/comfort facility and a small parking area would be developed on the athletic field site.

An 8-acre group picnic area with a shaded pavilion would be developed south of the softball fields. Group and individual cooking grills, water and comfort facilities, and a playground and game area would be provided.

Two little league ballfields would be developed by the concessioner in the northern portion of the athletic complex to replace the existing fields to the south. The two existing fields in the eastern back-beach area would be upgraded to support the community need for little league facilities. These fields would continue to be free, operating under permit from the National Park Service. A fee batting cage would be added next to the fields.

Other back-beach facilities that would be developed by the concessioner include a miniature golf course and a 1.4-acre non-fee picnic area for beach users just to the east of the aquatic park. The concessioner would also rehabilitate the east mall food-concession building and the basketball court area, which would serve as an ice-skating rink during the winter.

The Park Service would be responsible for rehabilitating the west mall building and the handball, paddleball, and paddle-tennis courts just east of the mall. The existing lighted softball field would be moved to Fort Tilden to make room for additional family picnicking and a children's playground, and the area east of the bathhouse would be developed into a picnic complex with an adventure playground. Landscaped areas would be replanted where necessary, and new trees would be planted throughout the park to provide more shaded areas. Other improvements to enhance visitor comfort would include additional seating (benches and tables with chairs) in some areas, new beach showers at beach access points, and a shade pavilion and information kiosk at the bus debarkation point. Handicap access would be provided to the beach by establishing a ramp and boardwalk at bay 3 near the handicap parking lot. The historic ship's rail and lighting fixtures would be rehabilitated to reflect their historic character and quality.

The rehabilitation and development of facilities at Riis Park would restore visitation and related traffic to early 1980s levels. To reduce traffic congestion and provide an alternate means of access, the concessioner would establish ferry service to the park from Brooklyn, Manhattan, and other points in the metropolitan area. This would require development of a docking facility on Jamaica Bay directly north of the Riis Park mall.

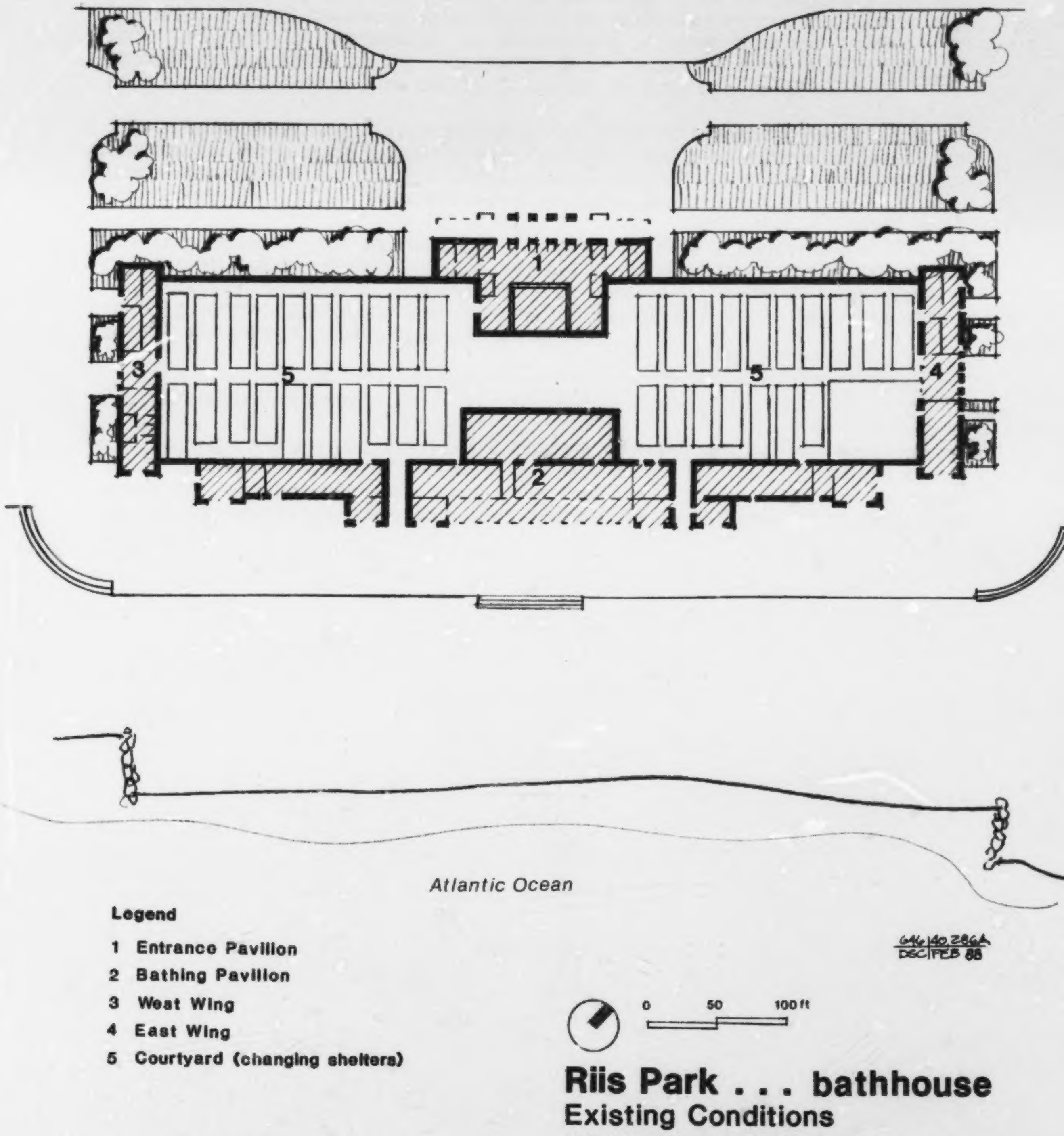
Rehabilitation and development costs under the proposal would be shared by the concessioner and the National Park Service. An estimated total of $19,800,000 to $22,800,000 would be required. Of this, $3,800,000 would fund the rehabilitation activities to be undertaken by the Park Service. The low range of the concessioner's estimate, $16,000,000, would provide for rehabilitation of the bathhouse without an enclosed inner court area and for rehabilitation or development of other proposed facilities. The concessioner's estimate for the rehabilitation of the bathhouse alone is $6,000,000; an additional $2,500,000 would be required to enclose the inner courtyard.

The operating costs would also be shared by the concessioner and the Park Service. The concessioner would cover all maintenance, operations, and security costs associated with concession operations. The Park Service would continue to provide lifeguards, law enforcement, first aid, and necessary visitor information services.

The current National Park Service operation at Jacob Riis Park is programmed at $750,000 per year, not including Park Police costs. With the proposed rehabilitation and development of the park, an increase of $980,000 would be required to provide minimum levels of operating service; an additional $370,000 would be required for the U.S. Park Police, mainly to cover the costs of extended hours of operation.

Special Visitor Programs

In cooperation with the Park Service and interested citywide social service organizations, the concessioner would offer recreation programs to serve the disadvantaged and special populations. Arrangements would be made to accommodate qualifying city youth, senior citizens, and other people from metropolitan organizations and institutions at the recreational facilities.


1
3
5
5
4
2
Atlantic Ocean

Legend

1 **Entrance Pavilion**
2 **Bathing Pavilion**
3 **West Wing**
4 **East Wing**
5 **Courtyard (changing shelters)**

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Riis Park . . . bathhouse
Existing Conditions

United States Department of the Interior
National Park Service

Charts Transposed to

End of Volume.

ALTERNATIVES TO THE PROPOSAL

In compliance with the National Environmental Policy Act of 1969, the following alternatives for rehabilitation and development of the Riis Park area have been considered. The impacts of implementing the proposal or any of the alternatives are described in the "Environmental Consequences" section.

The proposal for Riis Park that was presented in the 1988 DCP/EA has been eliminated from further consideration because public and agency review of that document indicated that the scope of proposed Riis Park developments could have a major effect on automobile traffic and result in related management concerns.

No Action – Continuation of Existing Conditions

Under this alternative current management practices, staffing levels, and facilities would remain essentially unchanged, and no major rehabilitation would be undertaken. Limited maintenance and repair of sites and facilities would continue, but major changes would only be made in response to emergencies and would not otherwise be planned for or anticipated. Park use would continue to gradually diminish as facilities continued to deteriorate.

1979 GMP Concepts for Riis Park

No specific development proposals were put forth for Riis Park in the 1979 GMP. The GMP indicated that the location and configuration of existing facilities would be retained and that significant improvements would be made to modernize them. The nature of the improvements was not stated, except that the bathhouse was to undergo intensive study and rehabilitation so that it would more fully support a wide range of recreational activities. Designated picnicking sites were to be established (250-550 people), but specific locations were not identified. The GMP is available for review at park headquarters.

1986 DCP for Riis Park

This alternative would involve the reallocation of space for different uses in some areas of Riis Park and the rearrangement of facilities in other areas; currently unused recreational areas would be organized to be more usable for picnicking and other outdoor activities. New shelters and restrooms would be built, and a major tree planting program would be undertaken.

The treatment of the Riis Park bathhouse complex would involve a two-part strategy. First, immediate attention would be given to stabilizing the bathhouse complex to prevent further deterioration. The majority of spaces along the boardwalk side of the bathhouse would be rehabilitated for the continued provision of food service, Park Service information, first aid, and Park Police and lifeguard services. Exterior stabilization would be limited to masonry repointing and consolidation as required, minor structural stabilization, and roof drain repairs. As an economy measure, most of the facility would be "mothballed" or sealed off from public access, much as it is today. As the second part of the strategy, the Park Service would continue to explore possibilities for adaptive use of the bathhouse, including soliciting proposals from public or private sector parties. The minimum rehabilitation work described above would stabilize the structure while maintaining the serviceability of the bathhouse concessions and allowing for adaptive reuse.

In the future the Park Service would accept proposals to lease all Riis Park facilities. If no acceptable proposals for rehabilitation and adaptive reuse of the park were received, then the facilities would remain in partial use.

The 1986 *Development Concept Plan/Environmental Assessment* that documents the proposals under this alternative is available for review at park headquarters.

ENVIRONMENTAL CONSEQUENCES

IMPACTS OF THE PROPOSAL

Cultural Resources

The historic structures comprising the Jacob Riis Park Historic District would benefit from being rehabilitated in accordance with the "Secretary of the Interior's Standards for Rehabilitation." Deteriorated features would be repaired, and the interiors upgraded to meet the needs of today's visitors. The landscaped areas and play courts would be rehabilitated and maintained.

The adaptive use of the bathhouse might require modifications that would alter the external appearance of the building. A roof over the open court area would allow the facility to operate year-round, and currently unused entrances to the building might be reopened to facilitate access.

The development of the aquatic park would introduce a contemporary element into the historic district. The 55-foot-high water slide towers would be visible in the western portion of the park. Vegetation screening would provide some visual buffer, and the aquatic park would be designed to maintain the existing character of Jacob Riis Park. The other smaller recreational additions along the back-beach area would also maintain this character.

As specific facilities and areas were developed, any ground-disturbing activities would require evaluation and possible site investigation or monitoring by an archeologist.

Increased park visitation would cause additional wear and tear on the historic landscape features and structures. This would require additional maintenance and repairs. The likelihood of vandalism within the park would also increase.

On November 12, 1980, a memorandum of agreement under the Programmatic Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers was concluded on the Gateway *General Management Plan*. That memorandum covered all necessary compliance with section 106 of the National Historic Preservation Act except for any actions subsequently proposed that differed from the concepts and proposals in the GMP. Because GMP proposals for Riis Park were so general in nature and anticipated no major development changes, the recommendations in this DCP differ substantially from the intent of that document. Therefore, the National Park Service is working closely with the New York state historic preservation officer and the Advisory Council on Historic Preservation to ensure that rehabilitation of facilities is consistent with the historic significance of Riis Park. It is anticipated that a memorandum of agreement would be concluded among the three parties on this DCP. Subsequently, implementation of actions outlined in the DCP would require only the completion of an "Assessment of Effect" (XXX) form.

Plans affecting the historic resources at Riis Park have been developed in consultation with involved cultural resource agencies. Plans were transmitted to the New York state historic preservation officer in June 1987 and to the Advisory Council on Historic Preservation and the state historic preservation officer in March 1988.

Visitor Use

Rehabilitation and adaptive use of the Riis bathhouse would greatly expand services for visitors, including a restaurant, ethnic foods, catering, cultural and recreational programs, and exhibition space. If the inner court area was covered, these facilities and services could be enjoyed year-round. Relocation and/or improvement of other indoor and outdoor facilities would increase recreational opportunities throughout Riis Park.

In addition to the benefits gained from rehabilitation and enhancement of the park's traditional recreational and cultural facilities, the proposal would add many new recreational resources. The aquatic park would provide opportunities for recreation in a freshwater attraction, and the ballfield/picnic complex would satisfy community requests for these facilities. The new and rehabilitated 4.5 acres of picnic areas, in particular, would meet a critical need and eliminate the current crowding in undesignated areas. Installation of a ramp and boardwalk at bay 3 would greatly improve access to the beach for the disabled.

The bathhouse, ballfields, and aquatic park would expand the hours of operation in the park, and together the proposed facilities would better and more fully use available space. More visitors could therefore be introduced to these new recreational and cultural features. The park would likely attract visitors from a broader regional base and would be able to accommodate them without displacing current visitors and programmed uses.

Access and Circulation

As part of the background information related to the proposal, the concessioner undertook detailed traffic studies of roadways at Riis Park and nearby access roads. Appendix B contains the traffic impact assessment portion of these studies.

In the traffic impact assessment the future "no build" condition includes Park Service refurbishing of Riis Park, with an associated restoration of early 1980s visitation levels and related traffic. These increases would be mitigated by the implementation of ferry service. The analysis indicates that traffic levels of service would deteriorate somewhat, but would still be acceptable.

The future "build" condition adds the traffic that would result from the construction of the aquatic park and athletic complex. The analysis concludes that the minor reductions in service levels "do not constitute a significant adverse impact on the local roadway system."

Potential year-round use of the bathhouse court area would not further impact summer peak traffic levels, because the trade, hobby, and educational shows that are expected to attract significant numbers of visitors would not be permitted by the Park Service in the summer.

Socioeconomic Environment

Overall, the proposal would impact the Brooklyn and Queens areas in employment and recreation programs for disadvantaged and special populations. In addition to the broad economic advantages that would result from implementation of the proposal, concessioner/leasing fees to the National Park Service would be reinvested in rehabilitation, operation, and maintenance of the park. The scope of this proposal would have a positive impact on local businesses by stimulating increased visitation to the area.

The concessions operation would require 52 permanent full-time, 54 permanent part-time, and 82 seasonal employees, and the number of Park Service employees would also increase. The concessioner would be an equal employment opportunity employer and would use job training programs to provide employment opportunities for the disadvantaged and special populations.

To offset the fee charges at the aquatic park and other facilities, the concessioner would provide free or reduced-rate programs at all Riis Park fee facilities in cooperation with city and social service organizations.

Increases in noise would occur during construction and rehabilitation of facilities; these impacts would be short-term and minor. Following construction, use of the proposed athletic field complex would generate noise that would be heard in the adjacent residential area. This noise would be reduced by providing structural and vegetation screening. There would also be an 11:00 p.m. curfew on the use of ballfields to eliminate noise during late-night hours.

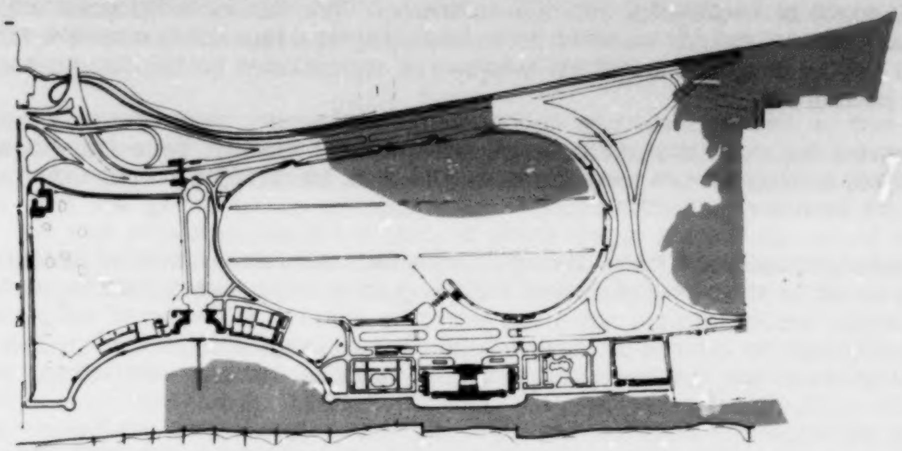
The lighting for the athletic fields would increase ambient light in this area. New lighting technologies that apply cowlings to the lamps would be employed to limit the lighting to the playing fields. Compliance with the curfew would ensure that the field lights were turned off by 11:00 p.m.

Natural Resources

Development of the 30-acre eastern parcel into an athletic field and group picnic complex would result in the elimination of approximately 70 percent of the natural vegetation of the site and would therefore reduce its value as bird habitat. This grassland/shrub-tree thicket habitat is unique on the Rockaway Peninsula and its loss would contribute to the cumulative impact of habitat losses and alterations around Jamaica Bay that are reducing the urban habitat supporting local and migratory bird populations. For example, the Rockaway Peninsula is a fall migratory route for large concentrations of raptors, which have been observed hovering or hunting over the 30-acre site.

Development of the area would retain as much of the existing vegetation as possible, particularly the mixed shrub-tree thicket area along the eastern boundary. This preserved natural vegetation would be managed for its habitat value and would contribute to the vegetated buffer area between the ballfields and the adjacent residences. The elimination of natural vegetation would be mitigated by the habitat rehabilitation of disturbed areas at a site of comparable value and size. The location of the mitigation site has not been determined, but areas of Floyd Bennett Field and around Jamaica Bay are being considered.

Proposals to build permanent structures in the floodplain would require further compliance with procedures implementing Executive Order 11988, "Flood Management"; however, no such structures are planned. According to available floodplain maps, the only proposed development within the 100-year floodplain is a portion of the athletic field complex. Since this is development of a recreation area, proposals for outdoor play areas, landscaping, and small parking areas are excepted from additional floodplain compliance requirements under section 5B of the NPS "Floodplain Management and Wetland Protection Guidelines." The sanitary facilities would be located outside the 100-year floodplain. Development of docks and piers for the ferry system is also excepted from further floodplain compliance as an action functionally dependent on water.



100-Year Floodplain

The leveelike presence of the concrete boardwalk keeps the Riis Park bathhouse out of the 100-year floodplain. Nevertheless, flooding of the first floor of the bathhouse by wind-driven waves has occurred during storms in recent years, and water has entered the bathhouse through the boardwalk entrances. Therefore, barriers or other flood protection methods would be provided at these entrances to protect the rehabilitated bathhouse interior and its contents and help reduce maintenance needs. Floodproofing materials would need to be included during rehabilitation of the bathhouse and other features.

Although the bathhouse and the proposed aquatic park are not within the 100-year floodplain, these developments would attract many visitors to this coastal area. Therefore, appropriate measures would be considered for the protection of park visitors. The concessioner would participate in the preparation of an evacuation plan to update the existing U.S. Park Police plan, with particular attention paid to handicapped visitors and those who have arrived by ferry or bus. This plan would be prepared before public use of the new recreation facilities. An existing interagency plan of the New York City Police, U.S. Park Police, and Triborough Bridge and Tunnel Authority includes waiving the bridge toll during storms or other events when rapid evacuation is required. There is also a storm emergency plan that includes automatic notification of the park in the event of storms.

Almost the entire park is within the 500-year floodplain. However, no critical actions would take place in this floodplain, nor would any developments be built in coastal high-hazard areas.

The marine intertidal wetlands (beaches) would not be impacted because neither development nor shoreline stabilization is proposed. Monitoring of the sand transport system would continue, particularly at the eastern end of the beach near the bathhouse, since increased beach erosion there could require sand nourishment to protect the park facilities.

Considering all of the above factors, additional compliance with floodplain management and wetland protection guidelines would not be required.

The location of the aquatic park could cause additional foot traffic into Fort Tilden, and this would present an increased threat to the stability of the Fort Tilden dune system. Use in the area would be monitored, and actions taken as necessary to regulate foot traffic near the dune areas and ensure their protection.

Construction work would cause minor short-term increases in erosion; these impacts would be mitigated by using sediment traps, silt fencing, and immediate reseeding. There would also be minor short-term increases in dust and air pollution during construction.

Air quality impacts associated with traffic do not appear to be significant, and air quality standards are expected to be maintained. The park is relatively isolated and subject to windy conditions, and peak traffic would occur only 10 to 15 days a year.

Other Effects

Development of the area east of the Riis Park parking lot for organized recreational uses (athletics, group picnicking) would help to eliminate the unlawful drinking, parking, car stripping, oil draining, and fires that currently take place in this area.

IMPACTS OF NO ACTION

Cultural Resources

Lack of preservation action would allow the normal deterioration of the bathhouse and other historic structures to continue and would result in an adverse effect on the historic district.

Visitor Use

Without physical changes in the park's facilities it would not be possible to meet the recreational needs of current park users. Deteriorating recreational sport facilities would not be repaired or replaced, and the quality and amount of use would continue to decrease. New children's activity areas would not be developed, and opportunities for family recreation would continue to be limited. Few site amenities (shade, water, seating, tables, and chairs) would be provided. Visitors would continue to make do with inadequate facilities or attempt to bring their own furniture with them. If park space was not reallocated, visitors currently engaging in picnicking in crowded unauthorized landscaped areas would continue to do so, and impacts on the landscaped vegetation would continue. The central ballfield would not be relocated; therefore, the space required by picnickers would not be available. Without sufficient staff, additional recreational programs would not be possible.

Natural Resources

The effects of this alternative on natural resources would be similar to those of the 1986 DCP alternative except that there would be no new developments or uses in the floodplain and no impacts resulting from construction. The naturally vegetated portion of the eastern

30-acre area of grassland and shrub-thicket habitat would not be modified and would develop naturally.

Other Effects

The unlawful drinking, parking, car stripping, oil draining, and fires that currently take place in the 30-acre area east of the parking lot would likely continue because no structured developments and recreational uses would be provided in this area.

IMPACTS OF THE 1979 GMP CONCEPTS

The 1979 *Final Environmental Statement for the General Management Plan* described the general impacts of development throughout the park. That document is available for review at park headquarters.

Implementing the GMP proposals would result in the rehabilitation of the park, with modern improvements and additional picnic areas. These actions would halt deterioration of the facilities and provide an attractive recreational area for use of visitors.

IMPACTS OF THE 1986 DCP

The 1986 *Development Concept Plan/Environmental Assessment* details the impacts of implementing this alternative. That document is available for review at park headquarters.

Cultural Resources

Any proposals for rehabilitation and adaptive use of the Riis bathhouse would have to include preservation of the bathhouse's exterior character, so there would be no adverse effects on the structure's National Register qualities. Proposed modifications of the recreational facilities at Riis Park would be in character with the historic district's significance as an example of 1930s recreational architecture and landscaping; therefore, proposed actions would have no adverse effect on the district.

As specific areas were developed, any ground-disturbing activities would require evaluation and possible onsite investigation by an archeologist. Known sites would be avoided.

On November 12, 1980, a memorandum of agreement under the Programmatic Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers was concluded on the Gateway *General Management Plan*. That memorandum covered all necessary section 106 compliance for this alternative, which carries through the GMP concept of rehabilitation and modernization of existing facilities. Any implementing actions that affected Jacob Riis Park would be reviewed and documented by the Park Service through use of the "Assessment of Effect" form (XXX form). Actions affecting National Register properties that differed from the concepts in the GMP and this alternative would require review by the New York state historic preservation officer and the Advisory Council on Historic Preservation.

Visitor Use

The alternative's proposed actions would benefit New York City residents by rehabilitating the park's facilities and providing a greater variety and availability of recreational opportunities. Recreational qualities would be improved by upgrading existing facilities, providing needed visitor amenities, and creating new activity areas. Modification and expansion of the play areas would increase opportunities for children's recreation and make the area more attractive for family use. Sports play would be improved by the reconstruction or repair of deteriorated courts. Provision of amenities, such as restrooms, seating, water, and shade, would help enhance visitor experiences. The establishment of picnic areas would especially meet a serious need of current park users. This action would eliminate the current practice of picnickers crowding into undesignated areas. The creation of new sports areas and other gathering places would help serve the wide range of age groups using the park. Installation of a ramp and boardwalk at bay 3 would provide access to the beach for the disabled. Plantings would make the park more attractive for visitors. Improved signing would help orient visitors to park activities and facilities.

Some minor disruptions to visitors would occur during construction and relocation of facilities.

Access and Circulation

Informational signs, seating, and shade at the Riis Park bus stops would eliminate confusion about bus lines and provide a more pleasant waiting area.

Because the park's recreational facilities would generally be rehabilitated, increases in the number of visitors back to early 1980s levels could be expected. Projected traffic is shown in appendix B as the 1990 "no build" condition.

Socioeconomic Environment

Since no major new recreation facilities would be developed, there would be few additional socioeconomic impacts. There would be little if any effect on employment and recreation programs and only a slight positive impact on local businesses.

Employment opportunities provided by concessioners and the National Park Service would remain close to 1989 levels. This alternative would involve no recreational use fees or revenue increases from current levels.

No noise or lighting impacts other than those associated with construction activities would occur.

Natural Resources

The actions in this alternative would not cause significant adverse impacts on the natural resources of Riis Park. The naturally vegetated 30 acres at the eastern edge of the park would not be modified and would develop naturally. Construction work would cause a minor short-term increase in erosion, but this would be mitigated by using sediment traps and immediate reseeding.

Some improvements would occur within the 100-year floodplain; however, these actions are excepted from compliance with Executive Order 11988, "Floodplain Management," under section 5B of the NPS "Floodplain Management and Wetland Protection Guidelines." Excepted actions include the development of picnic facilities, outdoor play courts, landscaping, and small parking lots.

Almost the entire area of Riis Park is within the 500-year floodplain. However, no critical actions would take place in this floodplain, nor would any developments be built within coastal high-hazard areas. The park has a storm emergency plan, which includes automatic notification of the park in the event of storms. The U.S. Park Police's general orders contain an evacuation plan, which would be revised to reflect the new development. These mitigating measures would help ensure protection of all visitors to this coastal park.

The marine intertidal wetlands (beaches) would not be impacted because neither development nor shoreline stabilization is proposed. Monitoring of the sand transport system would continue, particularly at the bay 1 beach in Riis Park immediately downdrift from the 149th Street groin.

In consideration of the above discussions, additional compliance with floodplain management and wetland protection guidelines would not be required.

No significant increases in visitors or automobiles would be expected on the peninsula, so no significant effects on air quality would take place. Minor effects of maintenance and rehabilitation activities on air quality would be mitigated as they occurred.

OTHER COMPLIANCE REQUIREMENTS

In addition to the NEPA documentation process, other specific compliance and permit requirements that would have to be considered during actions implementing either the proposal or alternatives include the following:

> Water systems would have to conform with EPA standards and comply with or exceed all primary and secondary regulations as well as NPS guidelines on employee and visitor health.
>
> Any pesticide use necessary to implement the plan would have to be coordinated with the Washington and regional NPS pesticide coordinators and be applied in accordance with the park's approved "Integrated Pest Management Plan."
>
> Design of park facilities would have to comply with applicable laws and regulations and provide the maximum feasible handicap accessibility under the constraints on the park.
>
> U.S. Army Corps of Engineers permits and U.S. Coast Guard approvals would have to be obtained for development of ferry docks and service.
>
> Alterations in New York City roads and streets would require coordination and approvals from the New York City Departments of Transportation and City Planning.

Water supply tapping and sewer connections would require permits from New York City.

A New York State water quality certificate would be needed, and federal, state and city air quality approvals might be needed.

Section 106 consultations would have to be undertaken with the Advisory Council on Historic Preservation and the New York state historic preservation officer, as previously described in the section on cultural resources impacts.

COASTAL ZONE MANAGEMENT CONSISTENCY DETERMINATION

The National Park Service has studied the state of New York *Coastal Management Plan* and has determined that the proposal for recreational development and management of Riis Park is consistent, to the maximum extent practicable, with the state of New York Coastal Management Program. This consistency determination addresses the proposal's relationship to the program's policies on access to water-related recreation resources; encouragement of water-dependent recreation; protection of historic and cultural resources; and New York City's policies on urban recreation and beach protection.

Policy 19 – Protect, maintain, and increase the level and types of access to public water-related recreational resources and facilities.

The proposal would attract increased visitors to this coastal park. Additional types and levels of transportation are proposed, including ferry and expanded bus service.

The Breezy Point shuttle system that was described in the *General Management Plan* has not been included in this *Development Concept Plan*. It is not practicable for the National Park Service to institute comprehensive transportation service on Breezy Point until the West Beach and Tip Beach areas of the Breezy Point district are developed for intensive recreational use. This action is not expected to occur within the timeframe (5 to 10 years) of this *Development Concept Plan*. The transportation system would be compatible with the present proposal and could therefore be developed in the future.

The DCP maintains existing access points and includes elements that improve convenience and efficiency for visitors arriving by cars and buses.

Policy 21 - Encourage and facilitate water-dependent and water-enhanced recreation and give priority over nonwater-related uses along the coast.

Development of the aquatic park would provide additional water-dependent recreation at Riis Park. The rehabilitation and development of other recreational facilities at Riis would make the park generally more attractive to visitors and encourage use of water-related and nonwater-related recreational facilities. The addition of site amenities and park activities would also encourage use of the beach, boardwalk, and play areas by a variety of user groups.

Policy 23 - Protect, enhance, and restore structures, districts, areas, or sites that are of significance in the history, architecture, archeology, or culture of the state, its communities, or the nation.

The proposal calls for rehabilitation of the historic structures in the historic district, which is listed on the National Register of Historic Places. All proposed development and modifications of recreational facilities within the Riis Park Historic District would be coordinated with the New York State Historic Preservation Office and the Advisory Council on Historic Preservation. The proposed actions in the *Development Concept Plan* that carry through the concepts and proposals in the *General Management Plan* are covered for necessary section 106 compliance under the 1980 memorandum of agreement for the GMP.

Policy 33 – Use best management practices to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.

All construction actions under the proposal would incorporate sediment control devices to minimize the minor short-term effects on water quality. Hay bale barriers or silt fencing would be placed between construction sites and the ocean. All disturbed areas would be seeded and mulched as soon as possible.

In addition to the state policies, the New York City Waterfront Revitalization Program contains policies relevant to this proposal:

New York City Policy F: Give priority to the development of mapped parklands and appropriate open space where the opportunity exists to meet the recreational needs of less mobile user groups and communities without adequate waterfront park space and/or facilities.

The proposal contains actions that would enhance the park for use by urban visitors, including immobile user groups. A ramp for handicap access to the beach is proposed at Riis Park. A focal point for seniors would be created by concentrating activities at a central location on the boardwalk. Introduction of additional seating, shade, and other amenities would also benefit senior visitors. The increase in picnic areas would greatly benefit members of communities without adequate waterfront park space or facilities.

New York City Policy G: Maintain and protect New York City beaches to the fullest extent possible.

The beach at Riis Park is being maintained for recreational uses, including swimming, sunbathing, and viewing the natural scene. The sand movement dynamics along the beaches would be monitored to ensure that future losses by erosion do not occur without proposed remedial actions.

CONSULTATION AND COORDINATION

The following agencies will be sent copies of the draft *Development Concept Plan/Environmental Assessment* for review and will also receive copies of the final plan for their information:

Federal

- Advisory Council on Historic Preservation
- Department of Agriculture
  - Soil Conservation Service
- Department of the Army
  - Corps of Engineers
- Department of Commerce
  - National Oceanic and Atmospheric Administration
    - National Marine Fisheries Service
- Department of Education
- Department of Energy
- Department of Housing and Urban Development
- Department of the Interior
  - Bureau of Land Management
  - Fish and Wildlife Service
  - Geological Survey
- Department of Labor
- Department of Transportation
  - Coast Guard
  - Federal Aviation Administration
  - Federal Highway Administration
  - Urban Mass Transportation Administration
- Environmental Protection Agency
- Federal Emergency Management Agency
- General Services Administration

New York State

- Department of Environmental Conservation
- Department of State, Division of Coastal Resources and Waterfront Revitalization
- Office of Parks, Recreation, and Historic Preservation
- Regional Clearinghouse
- State Historic Preservation Officer

New York City

- Department of City Planning
- Department of Environmental Protection
- Fire Department
- Health and Hospitals Corporation
- Landmarks Preservation Commission

Mayor's Office for Finance and Economic Development
Department of Parks and Recreation
Police Department
Department of Ports, International Trade and Commerce
Department of Transportation

Other

Metropolitan Transit Authority
Port Authority of New York and New Jersey
Triborough Bridge and Tunnel Authority

APPENDIX A: NATIONAL REGISTER OF HISTORIC PLACES NOMINATION FORM

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

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DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Fort Tilden Historic District (Gateway NRA)

AND/OR COMMON
Fort Tilden

2 LOCATION

STREET & NUMBER
Rockaway Beach Boulevard
__ NOT FOR PUBLICATION

CITY, TOWN
New York
__ VICINITY OF

CONGRESSIONAL DISTRICT
11

STATE
New York

CODE
36

COUNTY
Queens

CODE
81

3 CLASSIFICATION

CATEGORY
X DISTRICT
__ BUILDING(S)
__ STRUCTURE
__ SITE
__ OBJECT

OWNERSHIP
X PUBLIC
__ PRIVATE
__ BOTH

PUBLIC ACQUISITION
__ IN PROCESS
__ BEING CONSIDERED

STATUS
X OCCUPIED
__ UNOCCUPIED
__ WORK IN PROGRESS

ACCESSIBLE
X YES: RESTRICTED
__ YES: UNRESTRICTED
__ NO

PRESENT USE
__ AGRICULTURE
__ COMMERCIAL
__ EDUCATIONAL
__ ENTERTAINMENT
__ GOVERNMENT
__ INDUSTRIAL
__ MILITARY
__ MUSEUM
X PARK
__ PRIVATE RESIDENC
__ RELIGIOUS
__ SCIENTIFIC
__ TRANSPORTATION
__ OTHER:

4 AGENCY

REGIONAL HEADQUARTERS: *(If applicable)*
National Park Service, North Atlantic Region

STREET & NUMBER
15 State Street

CITY, TOWN
Boston.
__ VICINITY OF

STATE
Mass.

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.
Queens County Courthouse

STREET & NUMBER
45th Avenue

CITY, TOWN
New York

STATE
NY

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
None

DATE
__ FEDERAL __ STATE __ COUNTY __ LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

[illegible]

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X DETERIORATED	_UNALTERED	X ORIGINAL SITE
_GOOD	X RUINS	X ALTERED	_MOVED DATE______
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Battery Harris Casemates (HS-406,410)
Battery Harris originally (1921-24) consisted of two huge circular concrete platforms. The guns were exposed without benefit of any overhead protection. The original platforms remain although covered by earth, to a great extent at Structure 406.

The two guns of Battery Harris were roofed over in 1941-43 by massive concrete casemates approximately 850 feet apart. These two basically identical structures together comprise Battery Harris. Each emplacement was formerly equipped with one 16-inch gun. The two emplacements are roughly rectangular, single-story concrete structures constructed in a dome fashion and covered with earth and sand so that they resemble two oval hills approximately three hundred feet long and sixty feet high. The walls, floors, roofs and interior partitions are all concrete. Each bunker is laid out with two central corridors, one running north-south and one east-west. The guns were positioned in the southern end of the north-south corridor. There is a circular concrete hood which projects over the southern aperture of each emplacement designed to protect the guns from direct hits. There are six rooms leading off the two corridors: two powder rooms: two shell rooms; one tool room, and one latrine. There were steel grill gates installed in all four corridor entrances. These gates are in varying stages of deterioration. There are no mechanical or electrical facilities left in the emplacements. Structure 410, Gun #1, and Structure 406, Gun #2, constituted an important element in the harbor defense of New York City due to the long range and destructive power of the 16-inch gun. Each gun fired 2,100-pound projectiles for a maximum distance of 44,680 yards.

Battery Harris Magazines (401, 405, 409, 414)
These magazines, dating from 1922 (401 was constructed later during the early 1930s), were constructed to store the shells and powder used by the twin guns of Battery Harris (No. 406, 410). These four buildings are basically identical. Each building is a rectangular, single-story structure with a built-up low gable roof. The roof decks are composed of precast concrete planks and are supported by steel joists. The tile block curtain walls are supported by paired columns, the inner being steel and the outer concrete. The buildings rest on concrete wall footings. The floors are concrete slabs with steel rails for the shell-moving machinery set into them. There are raised concrete docks on either side of each building which run the length of their interiors. There are rolling steel overhead doors in either end of each building. Each magazine also has a steel plate door in one gable end which is reached by a flight of concrete steps. These doors open onto the storage docks.

Battery Harris Bombproof Magazine (411)
This earth-covered reinforced concrete bunker-like magazine was built for storage of shells and powder for Battery Harris. It was intended to be bomb-proof as contrasted to the other four Battery Harris magazines (401, 405, 409, 414) that are more exposed and not of the bunker class. This structure probably dates back to early 1940s when Battery Harris was casemated in fear of aerial bombardment.

Igloo Magazines (403, 404)
Located to the north of Magazine #405, there are two later magazines constructed circa 1943. These partially sunken concrete structures are of semi-cylindrical type known as Igloo Magazines. These two basically identical magazines are barrel vaulted structures with bulkhead entryways. Constructed of concrete, they have been banked with earth. They both have double wooden doors covered with tarpaper.

Six-inch Gun Batteries (315, 321)
The two 6-inch guns of Battery Construction No. 220 (#315) were moved from an earlier battery to the east and installed here by 1942. The guns are gone but their concrete platforms are still partly visible under heavy brush. They were separated by 210 feet. The concrete bunker was located to the rear and between the two gun platforms. It consists of a ground-level tunnel complex which was covered with sand and earth crowned by a rectangular, single-story observation or fire control station. The lower bunker rooms served as a magazine along with communications and other support functions. Its entrances are blocked with sand and the complex cannot be entered. The fire control booth on top of the bunker has a flat roof and an open hatchway in the northwest corner. Steel rungs are set into the wall of the booth and are the only remaining fixtures. There is a slit window which runs the length of the south side of the booth and for a short distance north of the booth. There are no mechanical or electrical facilities installed in the bunker. Probably finished by 1942, Battery Construction No. 220 has a seven-foot-thick front wall with a six-foot-thick rear wall.

The western battery, Battery Kessler (#321), was origianlly known as West Battery in 1917. At that time it consisted of two 5-inch guns mounted on circular concrete platforms. By 1942 an earth-covered concrete magazine bunker was constructed to the rear and between the two guns. As normal, the guns were removed around 1948 and the platforms are probably buried. The bunker is still extant, but it is a roughly rectangular single-story structure laid out with a main east-west corridor. To the south of th corridor are two powder rooms, a shell room, and two storerooms. The main corridor can be entered from doorways on both the east and west ends. The entire structure, except for the doors, is concrete. The double steel doors are still installed though somewhat rusted. They are three inches thick. There are no mechancial or electrical facilities still operating in the bunker.

Support Buildings (322, 402)
Designed as support buildings for the batteries, these structures are rectangular (12 x 18 and 12 x 14 respectively), single-story constructions with concrete block walls and flat concrete slab roofs. Both were probably constructed around 1940.

Form No 10-300a
(Rev 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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CONTINUATION SHEET ITEM NUMBER 7 PAGE 3

Power Plants (407, 408, 412)
Buildings Nos. 407, 408, and 412 were known historically as Power Plants 2, 3 and 1 respectively. The 3 formed part of Battery Harris. Power Plants 1 and 2 each supplied power to one of the big guns and Power Plant 3 was a reserve unit to be placed in operation in the event the other power plants were temporarily out of commission. Built during the early 1920s, all three are of concrete construction.

Fire Control and Plotting Room (413)
The building which contained plotting and switchboard rooms in support of Battery Harris is essentially an earth-covered concrete bunker. There is only one entrance which is equipped with steel gates. The structure was probably completed in 1924.

Mine Casemate and Plotting Room (511)
This structure, built during World War II, formed part of a mine battery consisting of three tactical units which were located at Fort Hancock, Fort Wadsworth, and Fort Tilden The mine casemate was the command post for the Fort Tilden branch of the submarine defenses.

It is a concrete bunker covered by sand and sod. It has a number of flues extending fro the roof which probably served as ventilators. There are two entrances on the north sid

Harbor Entrance Command Post (13)
Harbor Entrance (or Groupment) Command Post is the building in which the operational activities of Fort Tilden were coordinated. It is a one-story concrete bunker covered by sand and earth. The Command Post was constructed during World War II.

Telephone Pit (323)
This small rectangular, single-story building has a concrete slab hip roof. It is of concrete masonry construction and the floor is of sand.

Management Exclusion:
Within the boundaries of Fort Tilden there are several structures which do not meet National Register criteria. These buildings either do not relate to the harbor protection theme of the fort or, while they are listed on the enclosed site map, no longer exist. The structures include:

HS-316-320 Rifle range support structures
Pistol range
HS-324 No above grade remains
HS-325 No above grade remains
HS-514 No above grade remains
HS-14 Utility building

SIGNIFICANCE

PERIOD

__PREHISTORIC
__1400-1499
__1500-1599
__1600-1699
__1700-1799
__1800-1899
X 1900-

AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW

__ARCHEOLOGY-PREHISTORIC
__ARCHEOLOGY-HISTORIC
__AGRICULTURE
__ARCHITECTURE
__ART
__COMMERCE
__COMMUNICATIONS

__COMMUNITY PLANNING
__CONSERVATION
__ECONOMICS
__EDUCATION
__ENGINEERING
__EXPLORATION/SETTLEMENT
__INDUSTRY
__INVENTION

__LANDSCAPE ARCHITECTURE
__LAW
__LITERATURE
X MILITARY
__MUSIC
__PHILOSOPHY
__POLITICS/GOVERNMENT

__RELIGION
__SCIENCE
__SCULPTURE
__SOCIAL/HUMANITARIAN
__THEATER
__TRANSPORTATION
__OTHER (SPECIFY)

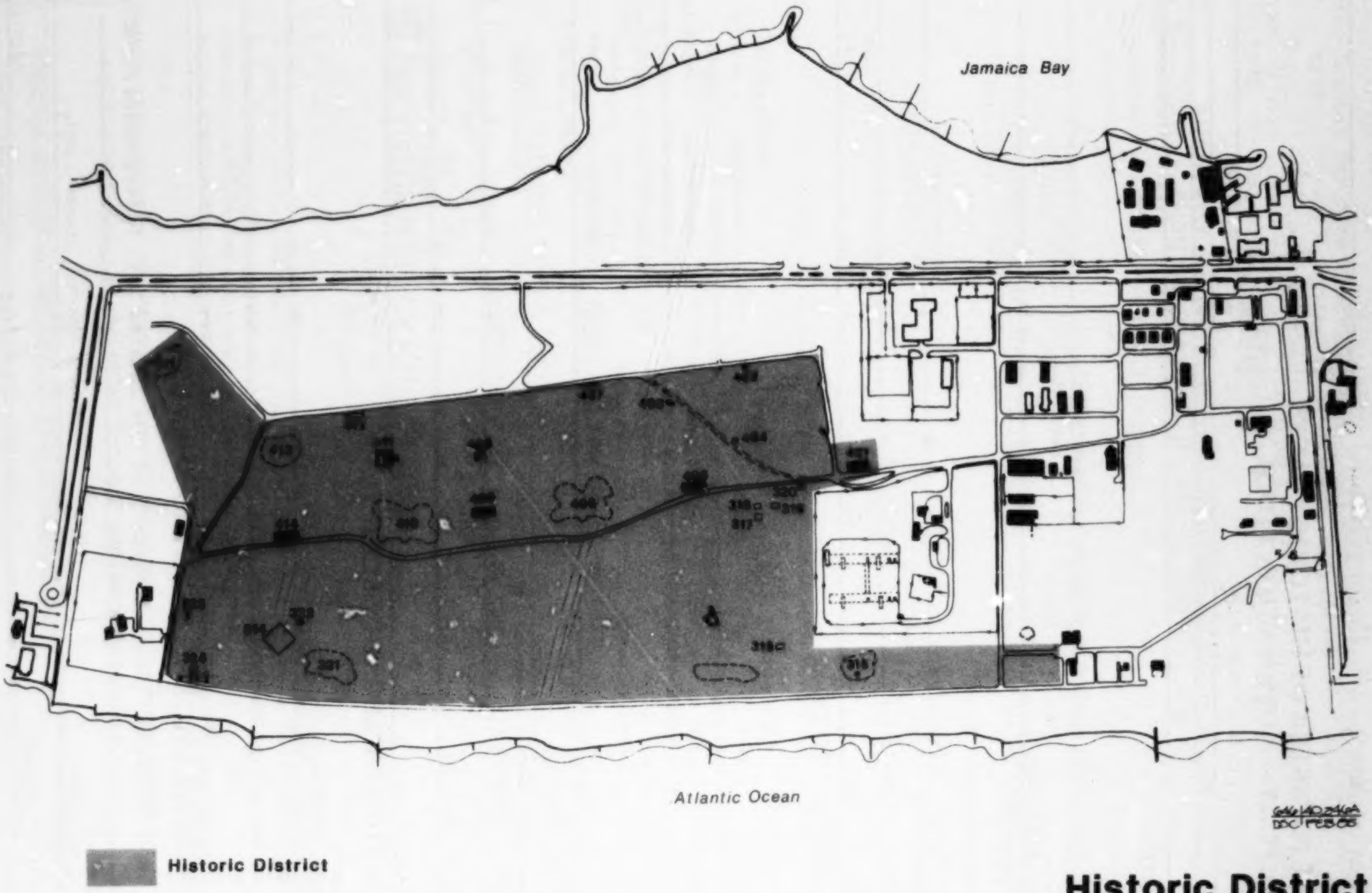
SPECIFIC DATES February 19, 1917 BUILDER/ARCHITECT U.S.Army

STATEMENT OF SIGNIFICANCE

Fort Tilden is significant because of its role in the defense network for New York Harbor. Although Fort Tilden was not established until 1917, Rockaway Peninsula on whic it is situated was recognized as early as 1814 for its strategic location and a blockhou was erected there during the War of 1812. There is no evidence that the peninsula was fortified in subsequent years. Followings its construction, Fort Tilden joined Fort Hancock on Sandy Hook, New Jersey, and Fort Wadsworth on Staten Island, New York, as part of the outer defense system for New York City and the harbor from World War I through the Cold War era.

The twin emplacements of Battery Harris, moreover, illustrate the technical improvements which took place in military weaponry between the two World Wars. Originally constructe as open-topped 16-inch disappearing gun batteries, Battery Harris was updated during World War II. Reinforced concrete casemates were built over the guns to protect them from aerial bombardment.

As well as demonstrating technological developments in military history during the first half of the twentieth century, the site, in conjunction with Fort Hancock, illustrates complex reorganization of traditional coastal defense systems. Fort Tilden was part of the Army's highly specialized system for the protection of New York Harbor from attacks from the sea. Defensive elements such as seacoast artillery, anti-aircraft artillery, submarine mining and observation, lighting and listening posts were coordinated between the two forts. Battery Weed and Fort Tompkins within Fort Wadsworth and Fort Hancock are already on the National Register; it is appropriate that the third member of this triumvirate be listed as well.


Jamaica Bay
Atlantic Ocean
413
410
404
414
320
318
319
317
321
315
316
646/40,246A
DSC FEB 83
Historic District

Historic District

Fort Tilden

United States Department of the Interior
National Park Service

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Jacob Riis Park Historic District (Gateway NRA)

AND/OR COMMON
Jacob Riis Park

2 LOCATION

STREET & NUMBER
Rockaway Beach Boulevard
__NOT FOR PUBLICATION

CITY, TOWN
New York
__ VICINITY OF

CONGRESSIONAL DISTRICT
11

STATE
New York

CODE
36

COUNTY
Queens

CODE
81

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
X DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	X PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	__OTHER

4 AGENCY

REGIONAL HEADQUARTERS (If applicable)
National Park Service, North Atlantic Regional Office

STREET & NUMBER
15 State Street

CITY, TOWN
Boston
__ VICINITY OF

STATE
Mass.

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Queens County Courthouse

STREET & NUMBER
45th Avenue

CITY, TOWN
New York

STATE
New York

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Tony W. Wrenn, "General History of the Jamaica Bay, Breezy Point, and Staten Island Units," GATE

DATE
9/31/75
__FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
NAR

CITY, TOWN

STATE

MAJOR BIBLIOGRAPHICAL REFERENCES

Lewis, Emanuel Raymond. 1979 *Seacoast Fortifications of the United States: An Introductory History*. Annapolis:Leeward Publications Inc.

Torres, Louis. 1980 "Historic Structure Report, Historical Data Section of Fort Tilden, Gateway National Recreation Area, New York." Denver: National Park Service

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 98 acres

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	1,8	5,9,5,0,0,0	4,4,9,1,5,9,0
B	1,8	5,9,5,0,0,0	4,4,9,0,0,0,0
C	1,8	5,9,2,7,5,0	4,4,8,9,7,0,0
D	1,8	5,9,2,8,7,0	4,4,9,1,5,9,0

VERBAL BOUNDARY DESCRIPTION

The boundary of Fort Tilden Historic District is shown as the thick black line on the accompanying map.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Dwight Pitcaithley, NARO, and Michael Wurm, GATE

ORGANIZATION
North Atlantic Region

DATE
6/23/82

STREET & NUMBER
15 State Street

TELEPHONE
617/223-3778

CITY OR TOWN
Boston, MA

STATE
MA

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES___ NO___ NONE___

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ___National ___State ___Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	_UNALTERED	XORIGINAL SITE
XGOOD	_RUINS	XALTERED	_MOVED DATE_______
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Jacob Riis Park Historic District comprises three significant recreational buildin constructed between 1932-1937. These buildings are the core structures of Jacob Riis Park, now a unit of Gateway National Recreation Area, Queens County, New York. Jacob Riis Park (220 acres) occupies a mile-long section of the Rockaway Peninsula. Aside from swimming and sunbathing, the park provides other recreational activities such as fishing, hiking, boating, limited biking, and playing fields.

The Bathing Pavilion (HS 606), a massive structure commonly known as the Bathhouse, is a roughly T-shaped brick masonry building which consists of a rectangular, single-story unit built in 1932 and enlarged by a long, two-story addition on the south built in 1936-37. The earlier section is composed of a rectangular open court enclosed by high brick walls on the north, east, and west, and by the two-story addition on the south. In the center of the north wall there is a single-story projection which provides the entrance to the bathhouse and also houses bathhouse facilities. Its front is faced with a long arcade supported by corinthian pillars and topped with two octagonal turrets. Within the arcade there are pairs of double doors topped with fanlight transoms and separated by booths which provide entry into the vestibule of the locker area. This projection is covered with an asphalt shingled gable roof. The locker area, which is not covered, is divided into a women's area on the west and a men's area on the east. There are 10,000 simple wooden cabanas in this inner court Passageways lead from each of these areas out onto the promenade through the southern addition. There are two identical single-story, rectangular brick buildings located on the southeast and southwest corners of this inner court. The eastern building houses a garage; and the western contains office space. The architects for this portion of the bathhouse were Stoughton and Plonck. In 1936 and 1937 the bathhouse was enlarged by the New York City Department of Parks. Clinton Lloyd was the chief of architectural design and Aymar Embury, II, was the architectural consultant for the Marine Parkway projects. The ocean side of the bathhouse is a long, two-story brick structure with concrete trim dominated by two octagonal four-story towers. The central area, projecting between the two towers, consists of an arcade supported by round concrete columns. Above the arcade is a rectangular concrete bay with rounded corners, a flat roof, and glass block windows, which contains a restaurant. On either side of this central projection, there are four rectangular, single-story projecting bays. The inner bays provide access to the locker courts; the outer bays contain the umbrella and deck chair concessions. There are symmetrical stairways on either side of these projections which lead up to a sun deck. Extending to the east and west of the central area, there are symmetrical two-story wings with gable roofs which terminate in square wings with hip roofs. The end wings contain refreshment bars on the ground level. The windows at the second story level are all glass block. The concession booths and the refreshment bars are indicated by steel-letter signs mounted above the windows.

The two Central Mall Buildings (HS603 and 604), constructed in 1936-37, are twin bri and tile masonry buildings with concrete trim which face each other across the south end of the mall. Both buildings consist of a square, two-story block (flanked by on story wings) connected to a rectangular, single story wing to the south by a single

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CONTINUATION SHEET ITEM NUMBER 7 PAGE two

story, semicircular wing. The northern sections have full, recessed porticoes support by concrete columns. The semicircular wings have seven doorways with sliding steel doors separated by brick piers. Both buildings have flat concrete roofs, concrete cornices and concrete floors. The eastern building houses a cafeteria and the western building contains offices, restrooms and a small bathhouse.

Although the other small buildings in the park--maintenance shops, refreshment stands, boiler room, golf course concession stand and electrical hut--are part of the Jacob Riis Park, they do not add significance to the Historic District.

SIGNIFICANCE

PERIOD

_ PREHISTORIC
_ 1400-1499
_ 1500-1599
_ 1600-1699
_ 1700-1799
_ 1800-1899
X 1900

AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW

_ ARCHEOLOGY-PREHISTORIC
_ ARCHEOLOGY-HISTORIC
_ AGRICULTURE
X ARCHITECTURE
_ ART
_ COMMERCE
_ COMMUNICATIONS
_ COMMUNITY PLANNING
_ CONSERVATION
_ ECONOMICS
_ EDUCATION
_ ENGINEERING
_ EXPLORATION/SETTLEMENT
_ INDUSTRY
_ INVENTION
_ LANDSCAPE ARCHITECTURE
_ LAW
_ LITERATURE
_ MILITARY
_ MUSIC
_ PHILOSOPHY
_ POLITICS/GOVERNMENT
_ RELIGION
_ SCIENCE
_ SCULPTURE
_ SOCIAL/HUMANITARIAN
_ THEATER
_ TRANSPORTATION
X OTHER (SPECIFY)
Urban Planning
Recreation

SPECIFIC DATES 1932-1937

BUILDER/ARCHITECT Julius Burgevin, Stoughton & Pl
New York City Department of Pa

STATEMENT OF SIGNIFICANCE

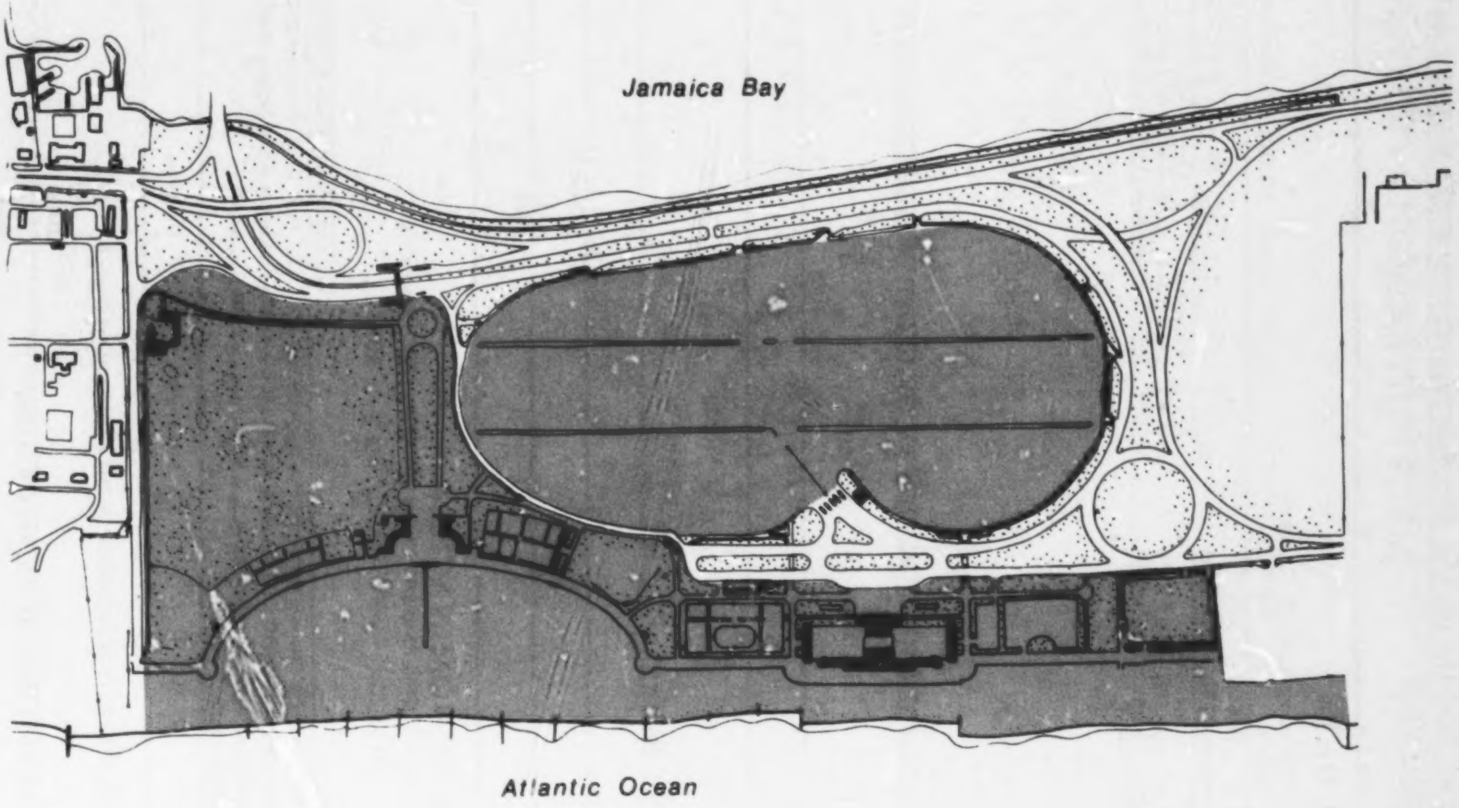
The buildings which comprise the Historic District--especially the Bathhouse--are excellent examples of recreational architecture of the early 1930's. They are the central structures in a fine example of public park design and community planning during the 1920's and 1930's. Also, Jacob Riis Park was completed through the Work Progress Administration, a Federal relief program of the Roosevelt Administration during the Depression. Therefore, it is associated with this important social and government program.

The Main Bathhouse is a good example of Art Deco design adapted to architecture. The Art Deco style, characterized by streamlined geometric shapes and occasional polychrome patterns, was particularly concentrated in New York City. The grounds at Jacob Riis were extensively landscaped to include ample recreational facilities among a setting of about 20,000 trees and 50,000 shrubs. Julius Burgevin, the landscape architect, included plantings of Japanese black pines, sea holly, bayberry, beach plum, as well as beach grass in his landscaping. The buildings and grounds, which have survived relatively unaltered since 1937, remain good examples of prevalent aesthetic design during the 1930's.

Although the development of the District as a city planned park begins in the early 1920's, the historical significance of the District derives from the implementation and construction of the park during the 1930's. Labor costs were funded through the Works Progress Administration. WPA projects in New York, including the nation's largest project, LaGuardia Airport, provided temporary relief for the city's unemployed.

As well as the district's association with a major innovation in public policy, the district is also associated with Robert Moses, the influential New York City Commissioner of Parks. In 1936, under Moses's direction, the bathhouse was enlarged, a mall was constructed, two semicircular buildings housing concessions and other facilities were erected, and new recreational facilities were added. A sixty-two acre parking lot located north of the bathhouse, was completed. With a 14,000 car capacity, it was the largest in the world at the time. Nearby the new Marine Parkway Bridge, another Moses project, was finished giving a new access route to the seashore park.

Jacob Riis Park officially opened on July 3, 1937. It was maintained by the City of New York until 1972 when the park was acquired by the National Park Service with the creation of the Gateway National Recreation Area.


Jamaica Bay
Atlantic Ocean

646 | 40,243A
DSC | FEB 88

▨ **Historic District**

Historic District
Jacob Riis Park

United States Department of the Interior
National Park Service

9 MAJOR BIBLIOGRAPHICAL REFERENCES

American Guide Series: New York City Guide (New York, Random House, 1939)

Wrenn, Tony: General History of the Jamaica Bay, Breezy Point and Staten Island Units. Gateway National Recreation Area, New York, NY (n.p., 1975).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than 1 acre

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	18	~~[illegible]~~ 595655	~~[illegible]~~ 4491880
B	18	59[illegible]55	44909[illegible]0
C	18	594880	4490320
D	18	594509	4491250

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Ricardo Torres-Reyes, NARO

ORGANIZATION
North Atlantic Region

DATE
2/15/77

STREET & NUMBER
15 State Street

TELEPHONE
223-3778

CITY OR TOWN
Boston

STATE
Mass.

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES___ NO___ NONE___

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ___National ___State ___Local

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

Form No 10-300a
(Rev 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
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NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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CONTINUATION SHEET Jacob Riis ITEM NUMBER 10 PAGE

UTM REFERENCES

A	18 595 655	44 91 880
B	18 596 055	44 90 980
C	18 594 880	44 90 380
D	18 594 500	44 91 250

ENTRIES IN THE NATIONAL REGISTER

STATE NEW YORK

Date Entered JUN 17 1981

Name	Location
Riis, Jacob, Park Historic District	Rockaway Point vicinity Queens County

Also Notified

Honorable Alfonse D'Amato

Honorable Daniel P. Moynihan
Honorable James H. Scheuer
Mr. David F. Hales,
Deputy Assistant Secretary for
  Fish and Wildlife and Parks
Mr. F. Ross Holland, NPS

State Historic Preservation Officer
Mr. Orin Lehman
Commissioner
Parks and Recreation
Agency Building #1
Empire State Plaza
Albany, New York 12238

For further information, please call the National Register at (202)343-6401.

APPENDIX B: TRAFFIC IMPACT ASSESSMENT

URS
AN INTERNATIONAL PROFESSIONAL SERVICES OR

URS CONSULTANTS
ONE PENN PLAZA
SUITE 610
NEW YORK, NEW YORK 10119-0118
(212) 736-4444

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
LOS ANGELES
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
WASHINGTON, D.C.

May 3, 1989

Mr. Joseph W. Halper
1200 N. Nash Street, No. 847
Arlington, VA 22209

RE: Riis Park Project -- Additional Capacity Analysis and Supplemental Traffic Investigations

Dear Mr. Halper:

In accordance with your recent request, URS Consultants utilized available data from the Parsons Brinckerhoff report (Riis Park Traffic Study; Technical Memorandum II, Phase Two, Traffic Impact Assessment, dated February 1988) to reassess traffic effects of the proposed reduced-size water park development. A description of our assessments and findings are presented below.

I. Existing Traffic Conditions

According to the Parsons report, most of the local streets operate at satisfactory levels of service (LOS) under existing (i.e., 1987 data) travel conditions during both AM and PM peak hours with a few locations operating at fair to poor levels of service. Figures 1 through 3 illustrate the 1987 existing traffic volumes and AM and PM travel conditions respectively. The levels of service are tabulated below:

1987 EXISTING TRAFFIC LEVELS-OF-SERVICE (LOS)

Location	Direction	Period	LOS
Marine Parkway Bridge	NB	AM	A
Marine Parkway Bridge	NB	PM	A-C
Marine Parkway Bridge	SB	AM	D
Marine Parkway Bridge	SB	PM	A
Marine Parkway Bridge South Ramp Area	SB	AM	D-E
Marine Parkway Bridge South Ramp Area	SB	PM	A
Breezy Point West of Marine Parkway	EB	AM	A
Breezy Point West of Marine Parkway	EB	PM	A

1987 EXISTING TRAFFIC LEVELS-OF-SERVICE (LOS) (Continued)

Location	Direction	Period	LOS
Breezy Point/Riis Park Ramp Merging Area	NB	AM	A
Breezy Point/Riis Park Ramp Merging Area	NB	PM	C-D
Beach Channel Drive North of Parking Fields	EB	AM	A
Beach Channel Drive North of Parking Fields	EB	PM	A
Beach Channel Drive North of Parking Fields	WB	AM	A
Beach Channel Drive North of Parking Fields	WB	PM	A
Diverge on EB Beach Channel Drive	EB	AM	D
Diverge on EB Beach Channel Drive	EB	PM	A
Merge on WB Beach Channel Drive	WB	AM	A
Merge on WB Beach Channel Drive	WB	PM	B
Traffic Circle Weave Area	WB	AM	C-D
Traffic Circle Weave Area	EB	PM	C-D
Rockaway Beach Boulevard	EB/WB	AM	B
Rockaway Beach Boulevard	EB/WB	PM	A

II. Description of the Proposed Development

The proposed development consists of two new recreational components, an aquatic complex and an athletic complex. The maximum capacity of the aquatic complex as currently envisioned (the water park) is estimated at 1,200 persons per session. It is proposed that four sessions per day of two hours duration each be the operational schedule for the aquatic complex. The maximum number of participants per session, 1,200 persons, would arrive at the park during the AM peak hour.

The second component of the proposed development, the athletic complex, would have a total capacity of 300 persons per hour based upon six baseball fields with 25 players and officials and 25 spectators attending each game.

These two proposed concepts are to replace the 15 acre aquatic complex and the 15,000 seat amphitheater proposed previously.

III. Future Traffic Conditions

A. No Build

In order to arrive at future "no build" (i.e., without the project) traffic volumes, the existing traffic volume information noted in the Parsons report was projected to increase one percent annually from 1987 to 1990. In addition, since beachfront facilities and structures are programmed for rehabilitation and improvement, National Park Service officials have estimated that visitation will increase substantially. To reflect this refurbishment of facilities in the future "no build" volumes and conditions, both Parsons and URS have increased morning peak hour volumes by 10 percent and afternoon/evening peak hour volumes by 25 percent. It is to be emphasized, however, that the park visitation rates supporting these traffic volumes are still comparable to levels which prevailed in the late 1970's, before the attractiveness of the Riis Park facility was somewhat diminished.

Because this increased visitation and traffic could produce congested traffic conditions if suitable measures to improve travel are not undertaken concurrently, it is proposed that regional ferry service to/from Manhattan, Eastern Brooklyn, and possibly New Jersey be instituted. Increased charter bus service may also be appropriate. The regional ferry service would be provided by an established New York Harbor ferry commuter operator, and utilize vessels up to 166 feet in length and 750 people capacity. Two vessels of this size are available, and were they each to make one trip during the peak hour at a reasonably full level of utilization, traffic conditions would be reduced to those shown on the accompanying 1990 future "no build" AM and PM traffic conditions Figures 5 and 6. As indicated, the levels of service for the 1990 "no build" conditions, while not as good as pre-refurbishment levels, are still acceptable.

B. Build

The future "build" (i.e., with the project) traffic volumes to be generated by the aquatic and athletic complexes were based upon the following guidelines, data and assumptions.

The modal splits for future build conditions for people attending the park for new activities as well as existing ones are 84% auto usage and 16% public transportation. These figures are from a study conducted by the Project for Public Places in 1977 commissioned by the National Park Service. An average auto occupancy of 3.67 has been used for Riis Park. This figure is based upon New York City Department of City Planning visitor surveys.

The following table presents trip generation estimates for the predominant traffic flow directions.

PEAK HOUR VEHICULAR TRIP GENERATION OF THE PROPOSED PROJECT

	Aquatic Complex	Athletic Complex	Total
AM - In	275	70	345
PM - Out	135	23	158

Trip distribution for the contemplated project among local approach/departure routes is based upon the Parson's report and trip making activities as follows:

GEOGRAPHIC DISTRIBUTION OF GENERATED TRIPS

Recreational Component/ Direction	Trip Distribution				
	Total	Flatbush Avenue	Cross Bay Boulevard	Breezy Point	Local Access To the East
Aquatic Complex In (10:45-11:45 AM)	275	233	33	3	4
Aquatic Complex Out (6:30-7:30 PM)	135	144	16	1	4
Athletic Complex In (10:45-11:45 AM)	70	59	8	1	2
Athletic Complex Out (6:30-7:30 PM)	23	19	2	1	1

These 1990 future build traffic volumes were added to the no build volumes for the corresponding year and are shown on Figure 7. The 1990 future build AM levels of service will remain the same as no build conditions with the exception of only two locations, the Breezy Point/Riis Park Ramp merge and the Marine Parkway Bridge South Ramp areas. At these locations minor reductions in service levels occur. Future AM build travel conditions are shown on Figure 8.

The 1990 future build PM levels of service (as compared with future no build) will be somewhat lowered as follows: Marine Parkway Bridge Southbound, from LOS A to C; Marine Parkway Bridge Northbound, from LOS A-C to C-D; Marine Parkway Bridge South Ramp Area, from LOS A to B; Breezy Point West of Marine Parkway, from LOS A to C; the Diverge on Eastbound Beach Channel Drive, from A to C; and Rockaway Beach Boulevard, from A to B. However, overall levels of service will not deteriorate significantly and will remain at acceptable levels based upon the Highway Capacity Manual. The 1990 future build PM travel conditions are shown on Figure 9. Both AM and PM travel conditions are tabulated below.

COMPARISON OF 1990 FUTURE TRAFFIC CONDITIONS WITH AND WITHOUT THE PROJECT

			LOS	
Location	Direction	Period	Without Project	With Project
Marine Parkway Bridge	NB	AM	A	A
Marine Parkway Bridge	NB	PM	A-C	C-D
Marine Parkway Bridge	SB	AM	D	D
Marine Parkway Bridge	SB	PM	A	C
Marine Parkway Bridge South Ramp Area	SB	AM	D	D-E
Marine Parkway Bridge South Ramp Area	SB	PM	A	B
Breezy Point West of Marine Parkway	EB	AM	A	A
Breezy Point West of Marine Parkway	EB	PM	A	C
Breezy Point/Riis Park Ramp Merging Area	NB	AM	A	B
Breezy Point/Riis Park Ramp Merging Area	NB	PM	C-D	C-D
Beach Channel Drive North of Parking Fields	EB	AM	A	A
Beach Channel Drive North of Parking Fields	EB	PM	A	A
Beach Channel Drive North of Parking Fields	WB	AM	A	A
Beach Channel Drive North of Parking Fields	WB	PM	A	A
Diverge on EB Beach Channel Drive	EB	AM	D	D
Diverge on EB Beach Channel Drive	EB	PM	A	C
Merge on WB Beach Channel Drive	WB	AM	A	A
Merge on WB Beach Channel Drive	WB	PM	B	B
Traffic Circle Weave Area	WB	AM	C-D	C-D
Traffic Circle Weave Area	EB	PM	C-D	C-D
Rockaway Beach Boulevard	EB/WB	AM	B	B
Rockaway Beach Boulevard	EB/WB	PM	A	B

IV. Impact of the Project

It is evident that the changes in levels of service and traffic conditions due to the proposed aquatic and athletic complexes do not constitute a significant adverse impact on the local roadway system in the vicinity of the site, through travel improvements such as those described on page 3 will be advisable to accommodate certain base or "no build" visitation and traffic levels. It is therefore the opinion of URS that no special mitigation measures will be required due to the proposed development.

Very truly yours,

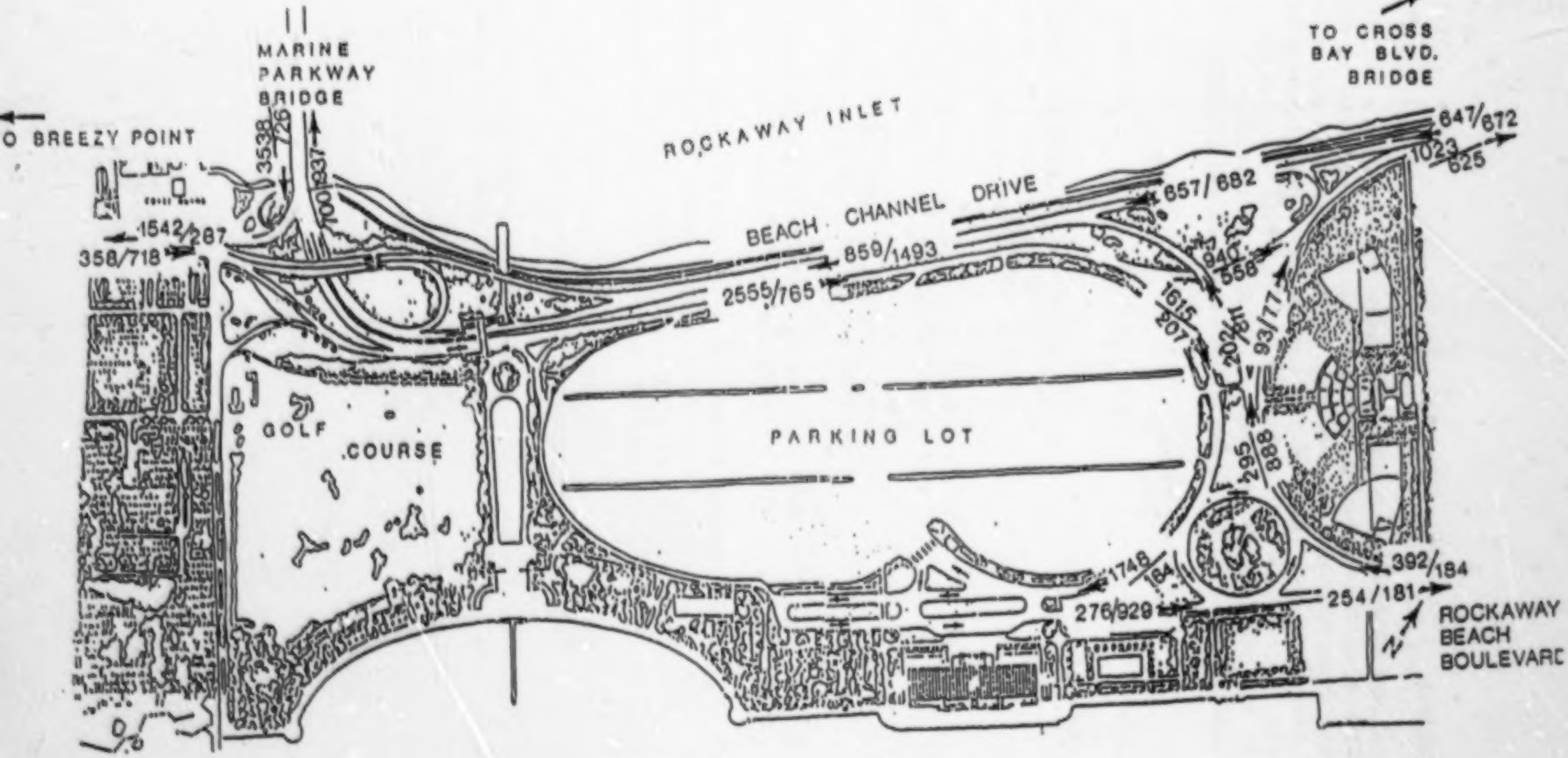
Raymond Tillman

Raymond Tillman, P.E.
Senior Vice President

Fred Minagar/

Fred Minagar, P.E.
Project Manager

Enc.

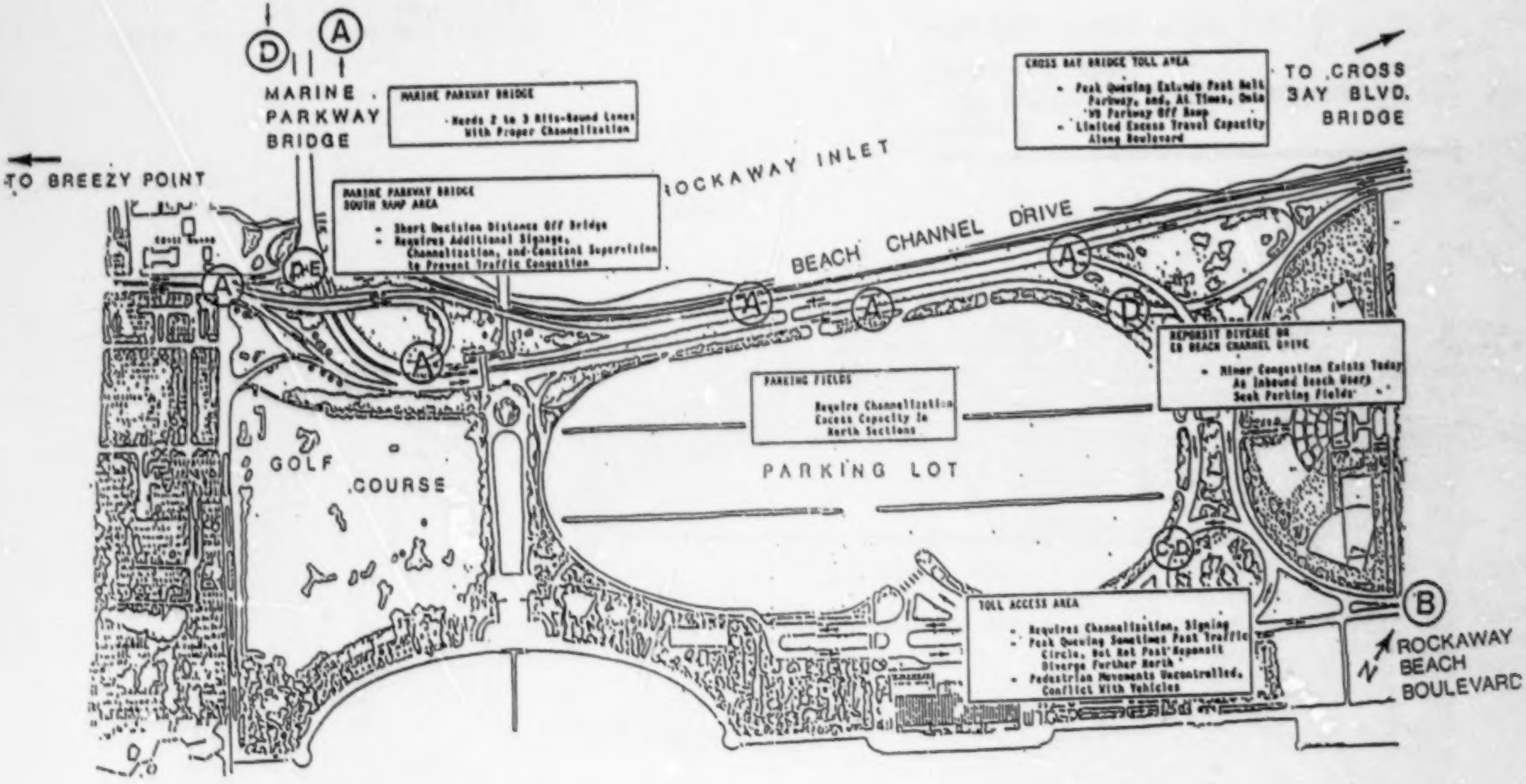


MARINE PARKWAY BRIDGE
O BREEZY POINT
TO CROSS BAY BLVD. BRIDGE
ROCKAWAY INLET
BEACH CHANNEL DRIVE
3538/726
700/837
1542/287
358/718
2555/765
859/1493
657/682
647/672
1023/625
940/558
1615/207
202/811
93/77
295/888
1748/184
276/929
392/184
254/181
ROCKAWAY BEACH BOULEVARD
GOLF COURSE
PARKING LOT
N

KEY: x/x – PEAK AM/PM TRAFFIC (VPH)

Figure 1
1987 Existing Traffic Volumes
(Summer Sunday)

Riis Park Traffic Study


TO BREEZY POINT
D
A
MARINE PARKWAY BRIDGE
ROCKAWAY INLET
BEACH CHANNEL DRIVE
TO CROSS BAY BLVD. BRIDGE
A
D-E
A
A
A
A
D
C-D
B
GOLF COURSE
PARKING LOT
ROCKAWAY BEACH BOULEVARD
N

MARINE PARKWAY BRIDGE
- Needs 2 to 3 Riis-Bound Lanes With Proper Channelization

MARINE PARKWAY BRIDGE
SOUTH RAMP AREA
- Short Decision Distance Off Bridge
- Requires Additional Signage, Channelization, and Constant Supervision to Prevent Traffic Congestion

CROSS BAY BRIDGE TOLL AREA
- Peak Queuing Extends Past Belt Parkway, and, At Times, Onto WB Parkway Off Ramp
- Limited Excess Travel Capacity Along Boulevard

PARKING FIELDS
Require Channelization Excess Capacity In North Sections

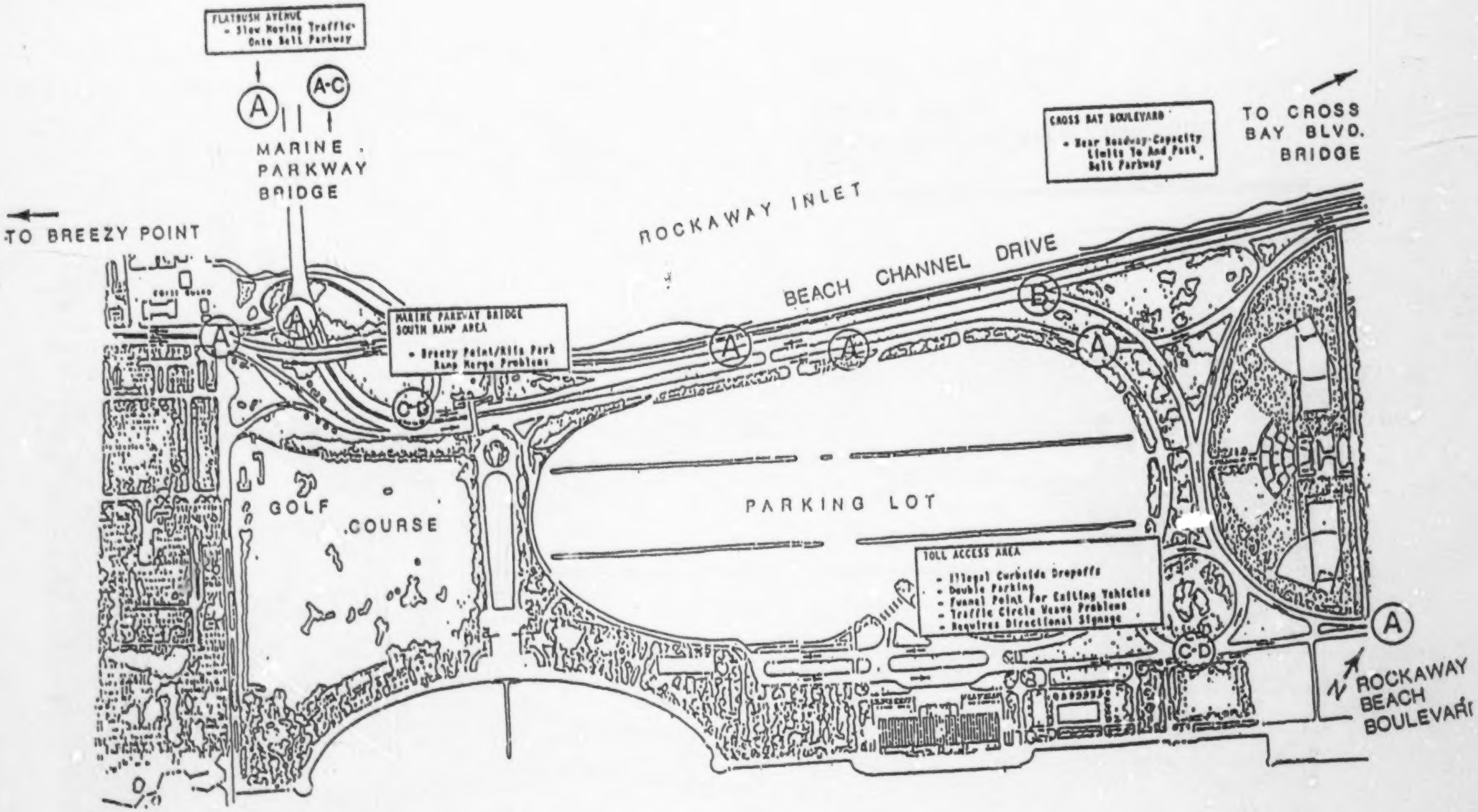
REPOSSIT DIVERGE ON EB BEACH CHANNEL DRIVE
- Minor Congestion Exists Today As Inbound Beach Users Seek Parking Fields

TOLL ACCESS AREA
- Requires Channelization, Signing
- Peak Queuing Sometimes Past Traffic Circle, But Not Past Repossit Diverge Further North
- Pedestrian Movements Uncontrolled, Conflict With Vehicles

KEY: → - TRAFFIC DIRECTION
○ - TRAFFIC LEVEL-OF-SERVICE

Figure 2
1987 Existing AM Travel Conditions
(Summer Sunday)

Riis Park Traffic Study

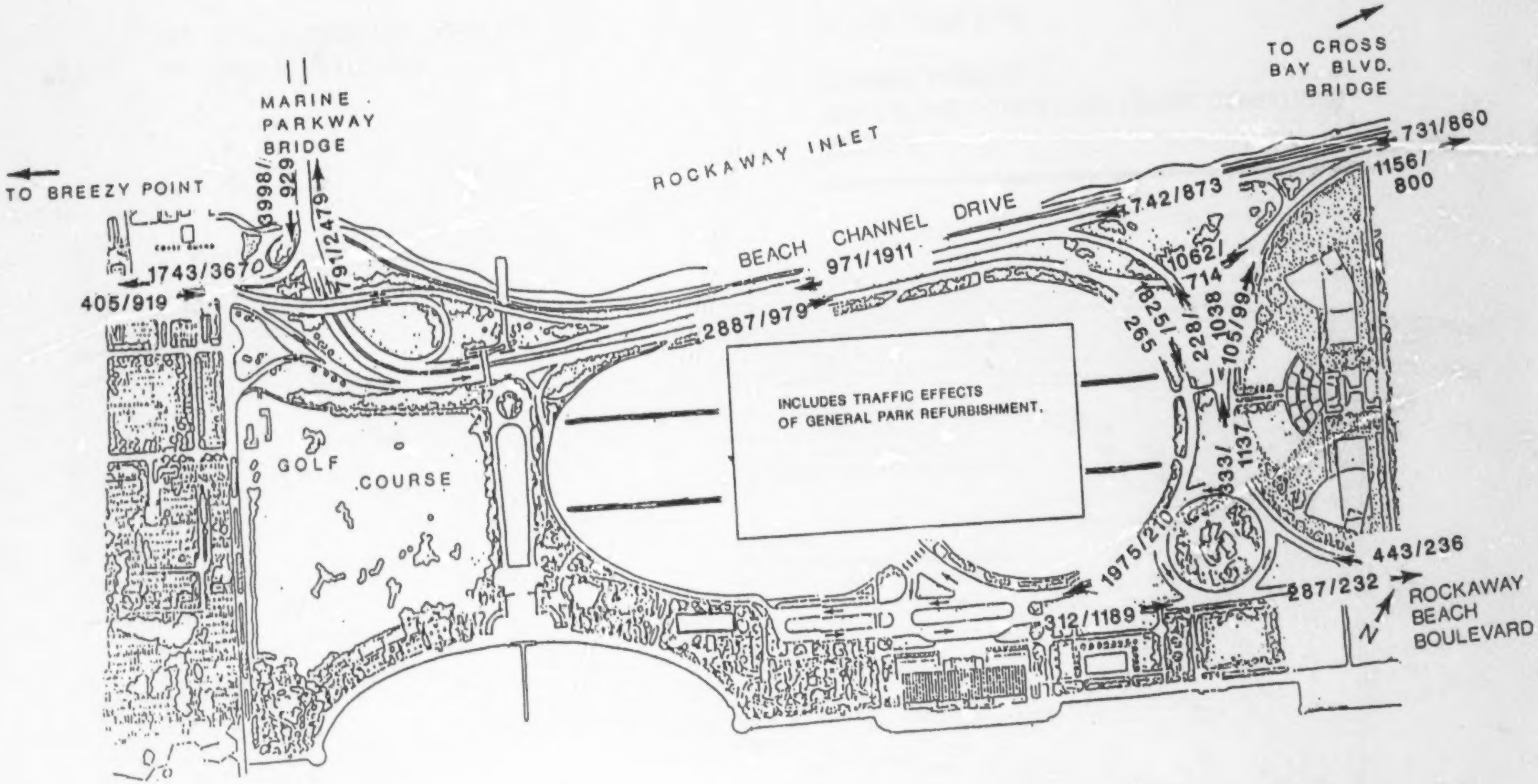


FLATBUSH AVENUE
- Slow Moving Traffic Onto Belt Parkway
A
A-C
MARINE PARKWAY BRIDGE
TO BREEZY POINT
MARINE PARKWAY BRIDGE SOUTH RAMP AREA
- Breezy Point/Riis Park Ramp Merge Problems
A
A
C-D
ROCKAWAY INLET
BEACH CHANNEL DRIVE
A
A
B
A
CROSS BAY BOULEVARD
- Near Roadway Capacity Limits To And Past Belt Parkway
TO CROSS BAY BLVD. BRIDGE
GOLF COURSE
PARKING LOT
TOLL ACCESS AREA
- Illegal Curbside Dropoffs
- Double Parking
- Funnel Point for Exiting Vehicles
- Traffic Circle Weave Problems
- Requires Directional Signage
C-D
A
N
ROCKAWAY BEACH BOULEVAR

Figure 3
1987 Existing PM Travel Conditions (Summer Sunday)

Riis Park Traffic Study

KEY: → - TRAFFIC DIRECTION
○ - TRAFFIC LEVEL-OF-SERVICE


TO CROSS BAY BLVD. BRIDGE
731/860
1156/ 800
TO BREEZY POINT
MARINE PARKWAY BRIDGE
3998/ 929
791/2479
1743/367
405/919
ROCKAWAY INLET
BEACH CHANNEL DRIVE
742/873
971/1911
2887/979
1062/ 714
1038 105/99
1825/ 265
228/
333/ 1137
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT.
GOLF COURSE
1975/210
312/1189
287/232
443/236
ROCKAWAY BEACH BOULEVARD
N

KEY: X/X- PEAK AM/PM TRAFFIC (VPH)

FIGURE 4
1990 FUTURE NO-BUILD TRAFFIC VOLUMES
(SUMMER SUNDAY)

Riis Park Traffic Study

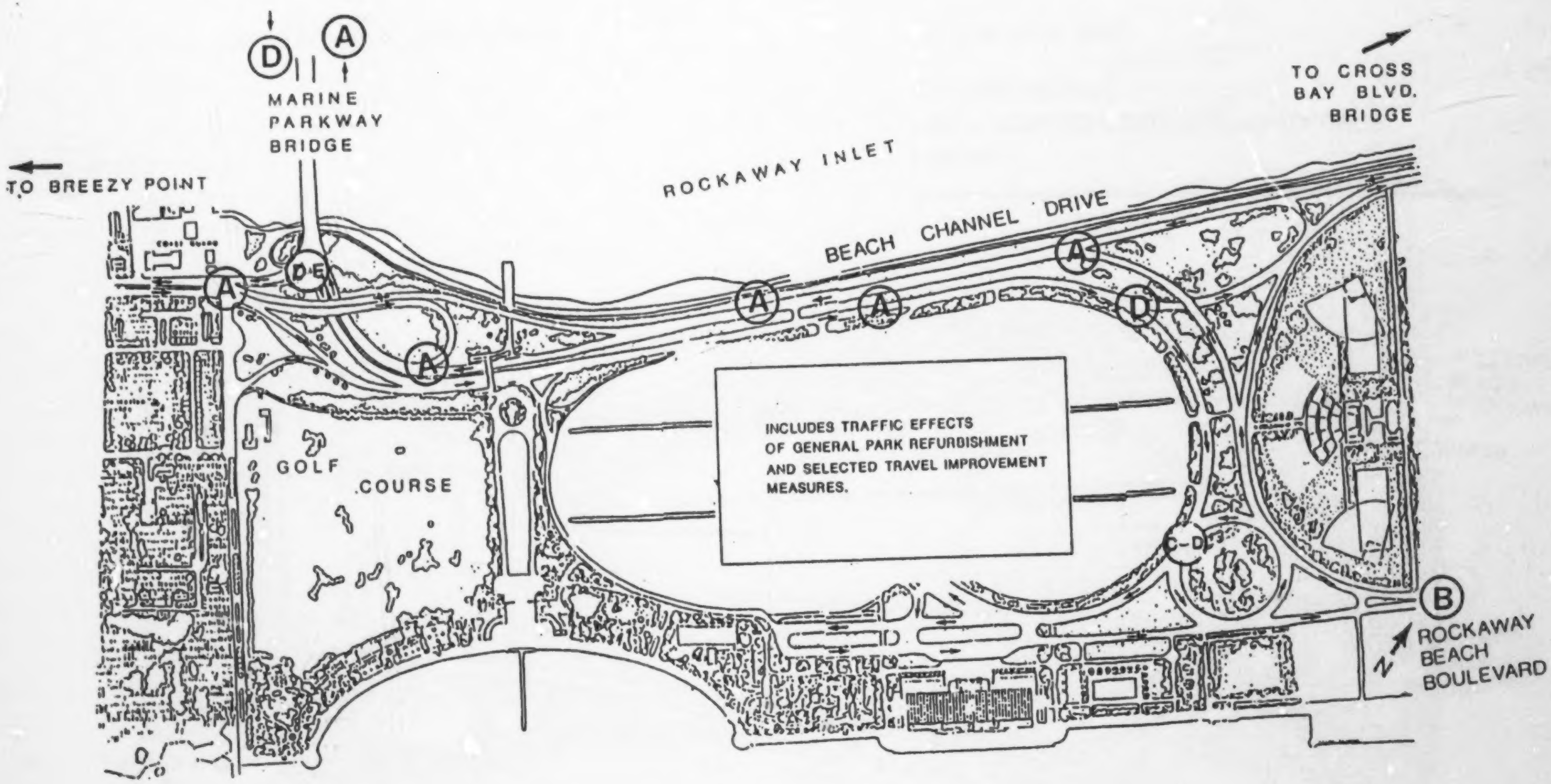

D
A
MARINE PARKWAY BRIDGE
TO BREEZY POINT
ROCKAWAY INLET
TO CROSS BAY BLVD. BRIDGE
BEACH CHANNEL DRIVE
A
D-E
A
A
A
A
D
GOLF COURSE
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT AND SELECTED TRAVEL IMPROVEMENT MEASURES.
C-D
B
N
ROCKAWAY BEACH BOULEVARD

FIGURE 5
1990 FUTURE NO-BUILD AM TRAVEL CONDITIONS
(SUMMER SUNDAY)

Riis Park Traffic Study

KEY:
- → - TRAFFIC DIRECTION
- ○ - TRAFFIC LEVEL - OF - SERVICE

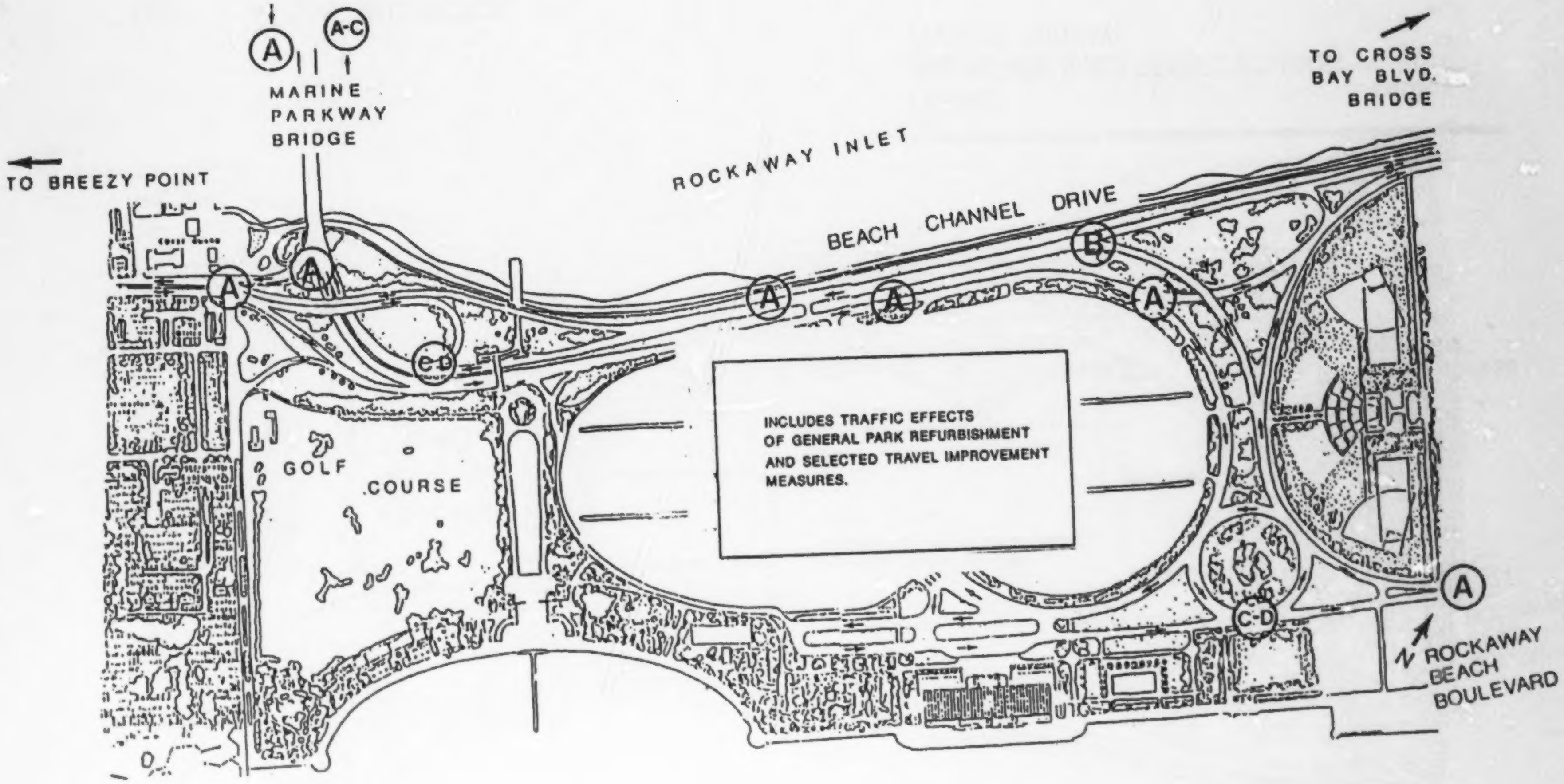
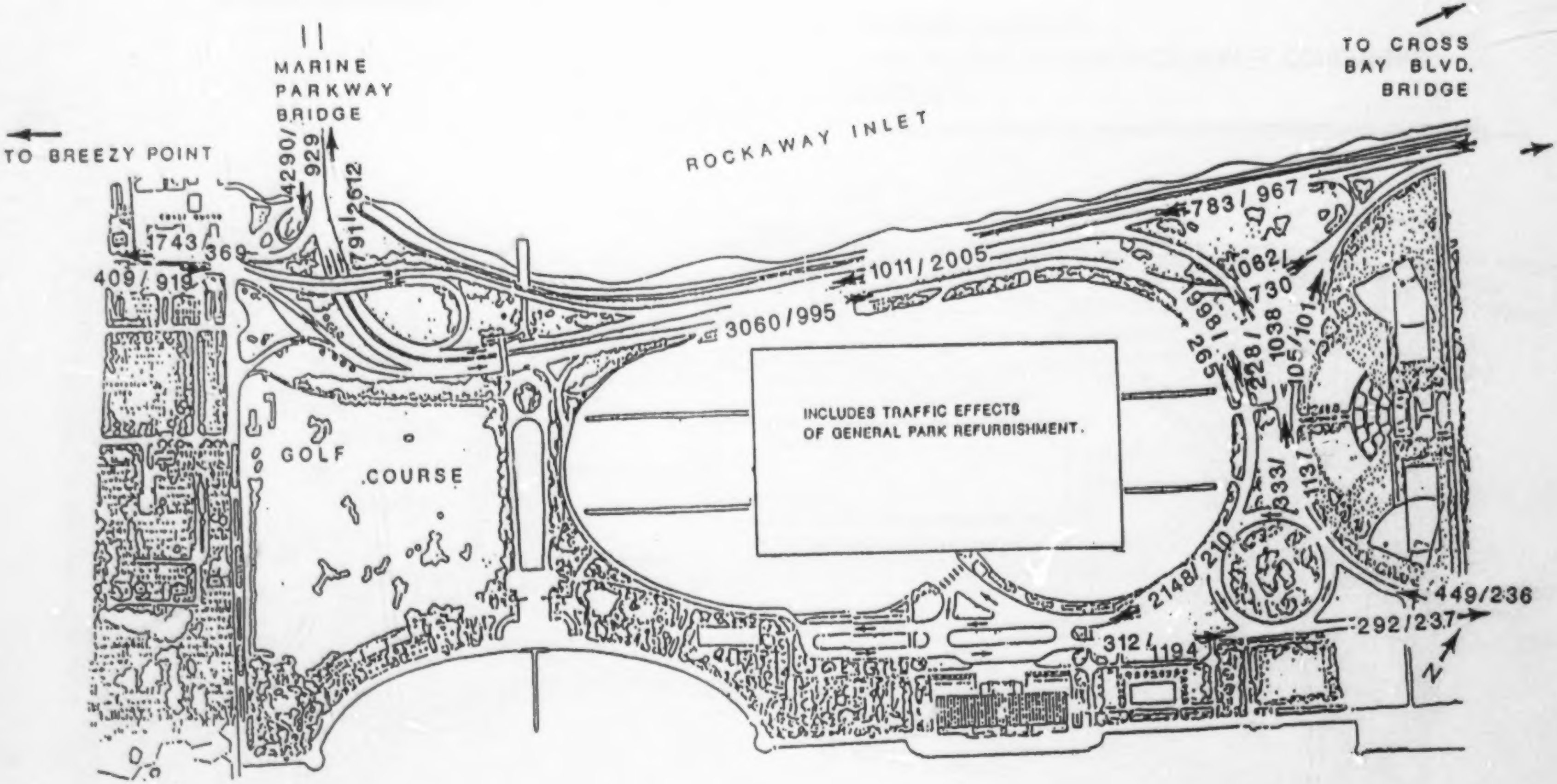

A
A-C
MARINE PARKWAY BRIDGE
TO BREEZY POINT
TO CROSS BAY BLVD. BRIDGE
ROCKAWAY INLET
BEACH CHANNEL DRIVE
A
A
C-D
A
A
B
A
GOLF COURSE
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT AND SELECTED TRAVEL IMPROVEMENT MEASURES.
C-D
A
ROCKAWAY BEACH BOULEVARD

FIGURE 6
1990 FUTURE NO- BUILD PM TRAVEL CONDITIONS (SUMMER SUNDAY)

Riis Park Traffic Study

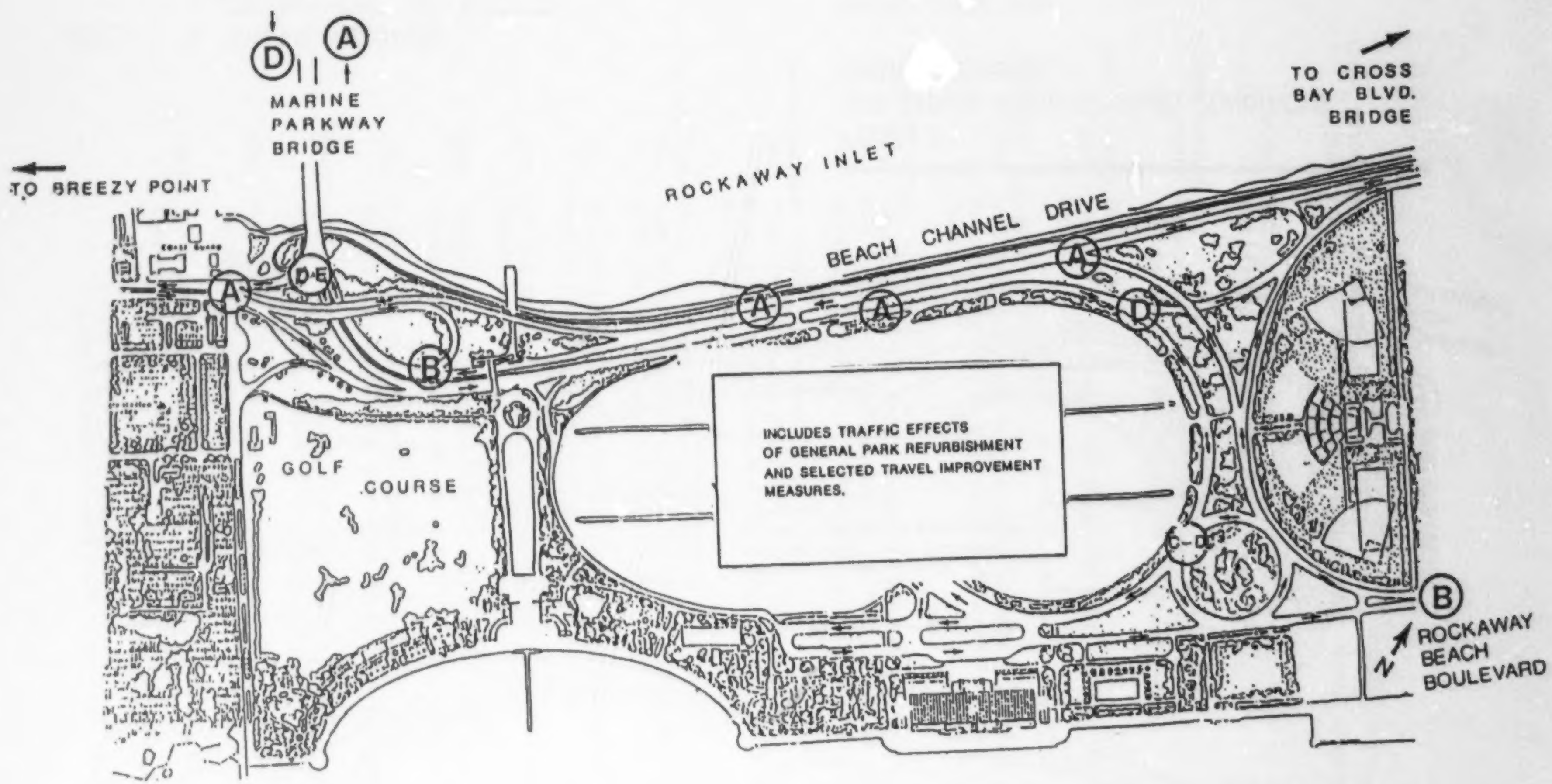
KEY:
→ - TRAFFIC DIRECTION
○ - TRAFFIC LEVEL - OF - SERVICE


TO BREEZY POINT
MARINE PARKWAY BRIDGE
ROCKAWAY INLET
TO CROSS BAY BLVD. BRIDGE
4290/ 929
791/2612
1743/369
409/ 919
1011/ 2005
3060/995
783/ 967
1062/
730
998/
265
228/
1038
105/101
333/
113/
2148/ 210
312/
1194
449/236
292/237
N
GOLF COURSE
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT.

KEY: → - TRAFFIC DIRECTION
X/X- PEAK AM/PM TRAFFIC (VPH)

FIGURE 7
1990 FUTURE BUILD TRAFFIC VOLUMES
(SUMMER SUNDAY)

Riis Park Traffic Study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ROCKAWAY INLET
BEACH CHANNEL DRIVE
TO CROSS BAY BLVD. BRIDGE
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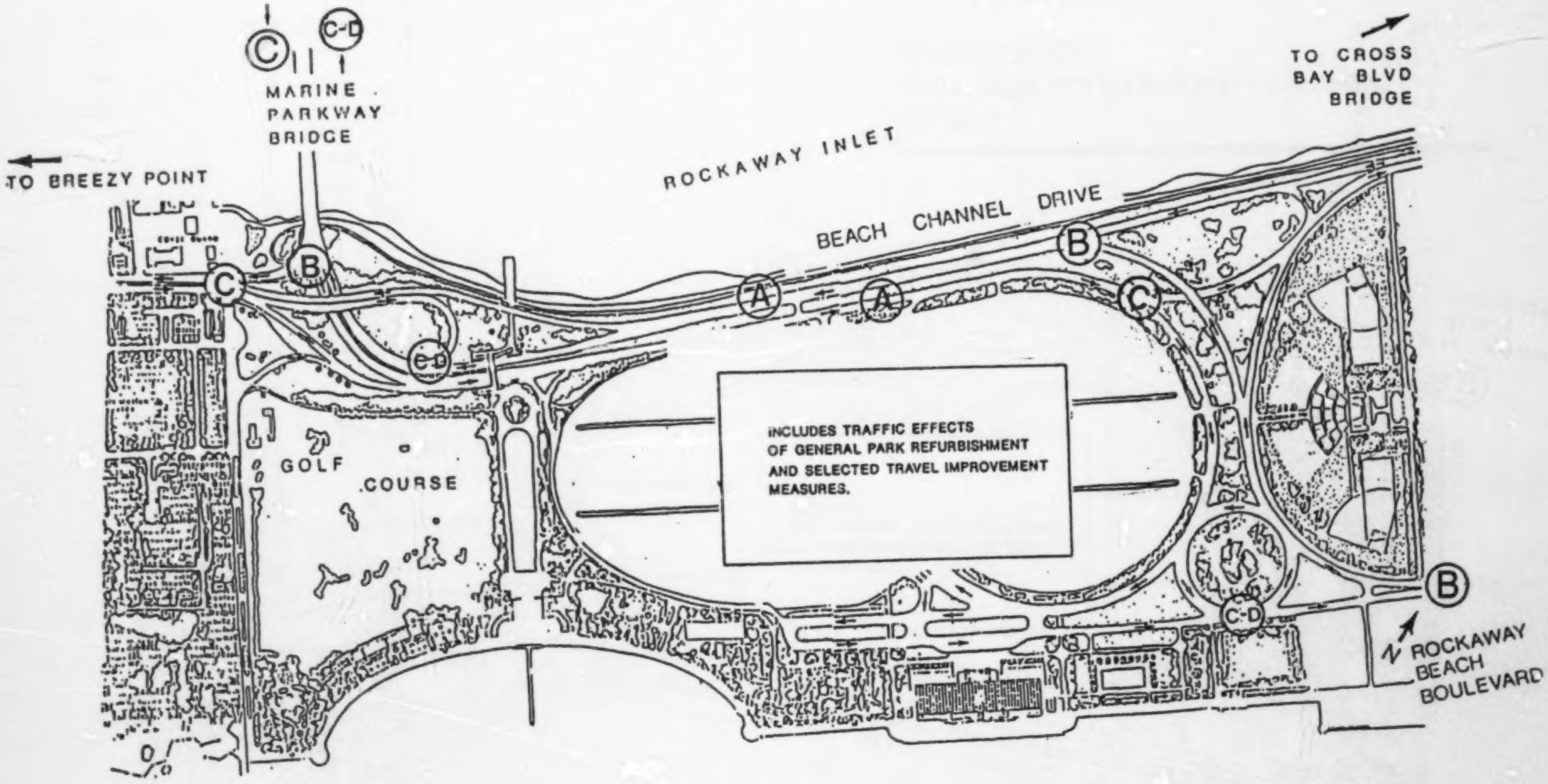
D
GOLF COURSE
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT AND SELECTED TRAVEL IMPROVEMENT MEASURES.
C-D
B
N
ROCKAWAY BEACH BOULEVARD

KEY: → - TRAFFIC DIRECTION
○ - TRAFFIC LEVEL - OF - SERVICE

FIGURE 8
1990 FUTURE BUILD AM TRAVEL CONDITIONS
(SUMMER SUNDAY)

Riis Park Traffic Study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TO BREEZY POINT
ROCKAWAY INLET
BEACH CHANNEL DRIVE
TO CROSS BAY BLVD BRIDGE
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GOLF COURSE
INCLUDES TRAFFIC EFFECTS OF GENERAL PARK REFURBISHMENT AND SELECTED TRAVEL IMPROVEMENT MEASURES.
C-D
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N
ROCKAWAY BEACH BOULEVARD

FIGURE 9
1990 FUTURE BUILD PM TRAVEL CONDITIONS
(SUMMER SUNDAY)

Riis Park Traffic Study

KEY:
→ - TRAFFIC DIRECTION
○ - TRAFFIC LEVEL - OF - SERVICE

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Denver Service Center

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Howie Thompson, Planning Section Chief (consultant)
Craig Cellar, Cultural Resource Planner
Elmer Hernandez, Transportation Planner

Gateway National Recreation Area

Robert McIntosh, General Superintendent
Joe Avery, Superintendent, Jamaica Bay/Breezy Point District
John Tanacredi, Chief, Division of Resource Management and Compliance

North Atlantic Regional Office (consultants)

Terry Savage, Chief, Division of Planning and Design
Dave Clark, Regional Environmental Coordinator

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center.
NPS D- 262   May 1989

Riis Park . . . bathhouse

Development and Use Concepts. The bathhouse would be the centerpiece of the public/private partnership at Jacob Riis Park. The entire structure would be rehabilitated to house both existing support services and new recreational and restaurant facilities. In addition, park interpretive exhibits would be displayed within the restored bathhouse. Construction of a roof over the inner court area would allow all-year use.

Specific Development and Rehabilitation Actions. Accomplish all architectural, structural, mechanical, and electrical improvements required to rehabilitate the bathhouse to the "Secretary of the Interior's Standards for Rehabilitation." Specific uses would occur in the following locations:

Bayside Pavilion

1 Interpretive Center
2 Lockers/Showers
3 Offices

Interior Court Area

6 Exhibition Space
7 Ethnic Food Court

East Wing

8 Public Restrooms
9 Police
10 First Aid

West Wing

8 Public Restrooms
11 Rangers
12 Lifeguards

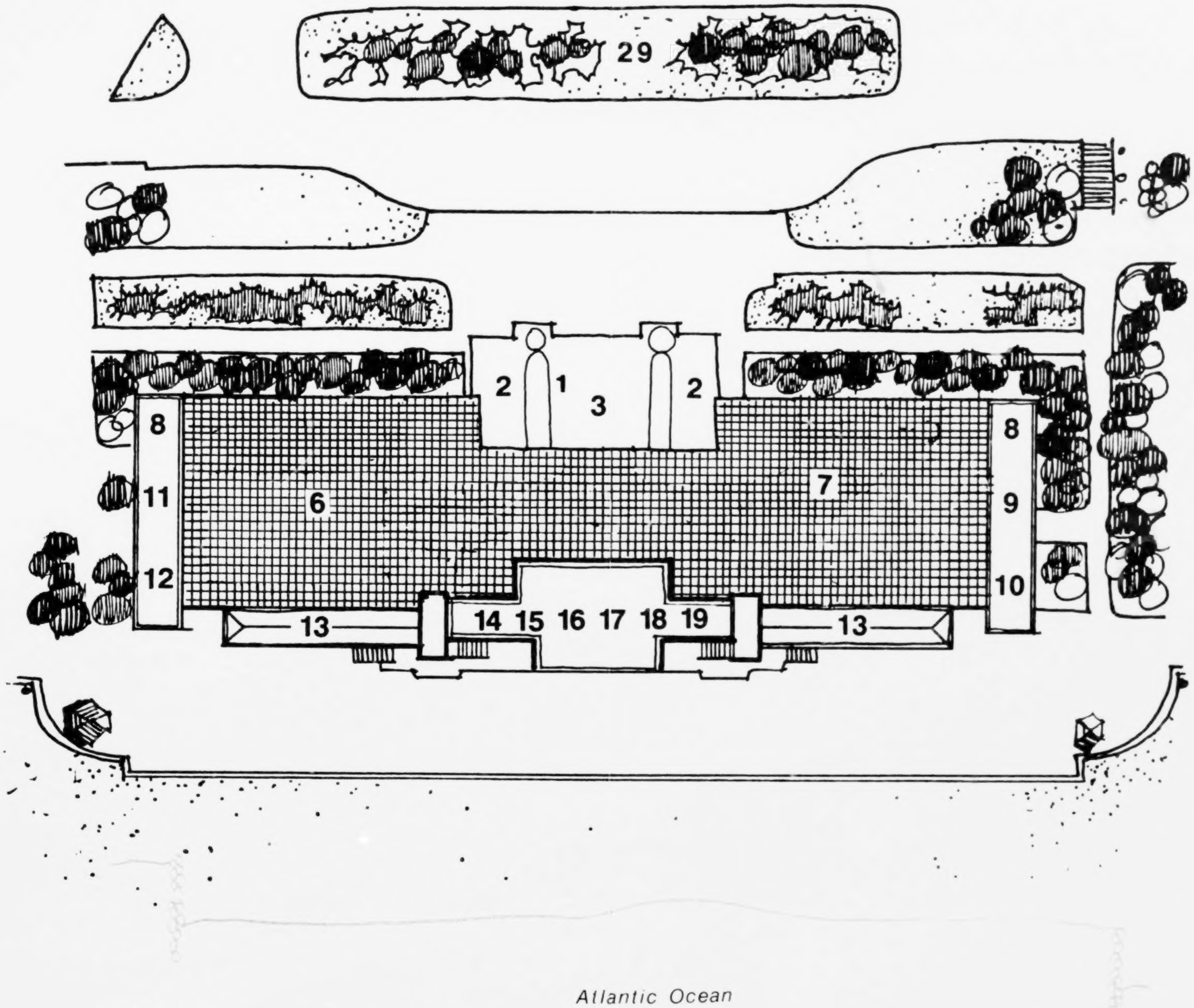
Oceanside Pavilion (first floor)

13 Surf Shops
14 Food Concessions
15 Game Arcade

Oceanside Pavilion (second floor)

16 Restaurant
17 Catering
18 Management
19 Roof Terrace

Development and Maintenance Costs. The concessioner would make the necessary investments to rehabilitate the Jacob Riis bathhouse in accordance with the standards of the secretary of the interior. A portion of the income from fee activities would be used to cover the costs of maintaining the facilities.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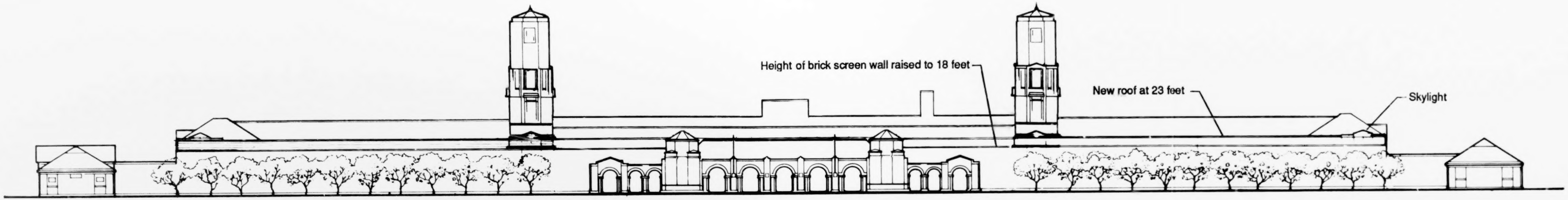
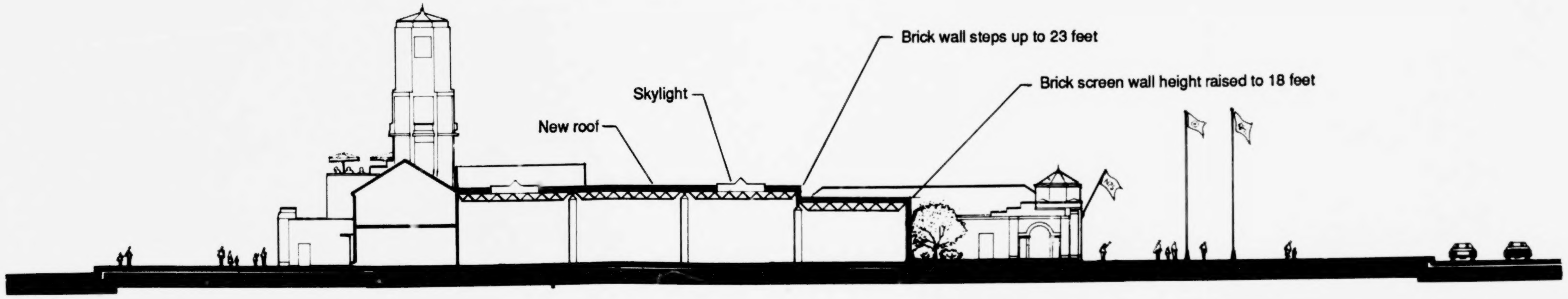
Riis Park . . . bathhouse
Proposal

United States Department of the Interior
National Park Service


Height of brick screen wall raised to 18 feet
New roof at 23 feet
Skylight

NORTH ELEVATION

Scale 1/16" = 1'-0"


Brick wall steps up to 23 feet
Brick screen wall height raised to 18 feet
Skylight
New roof

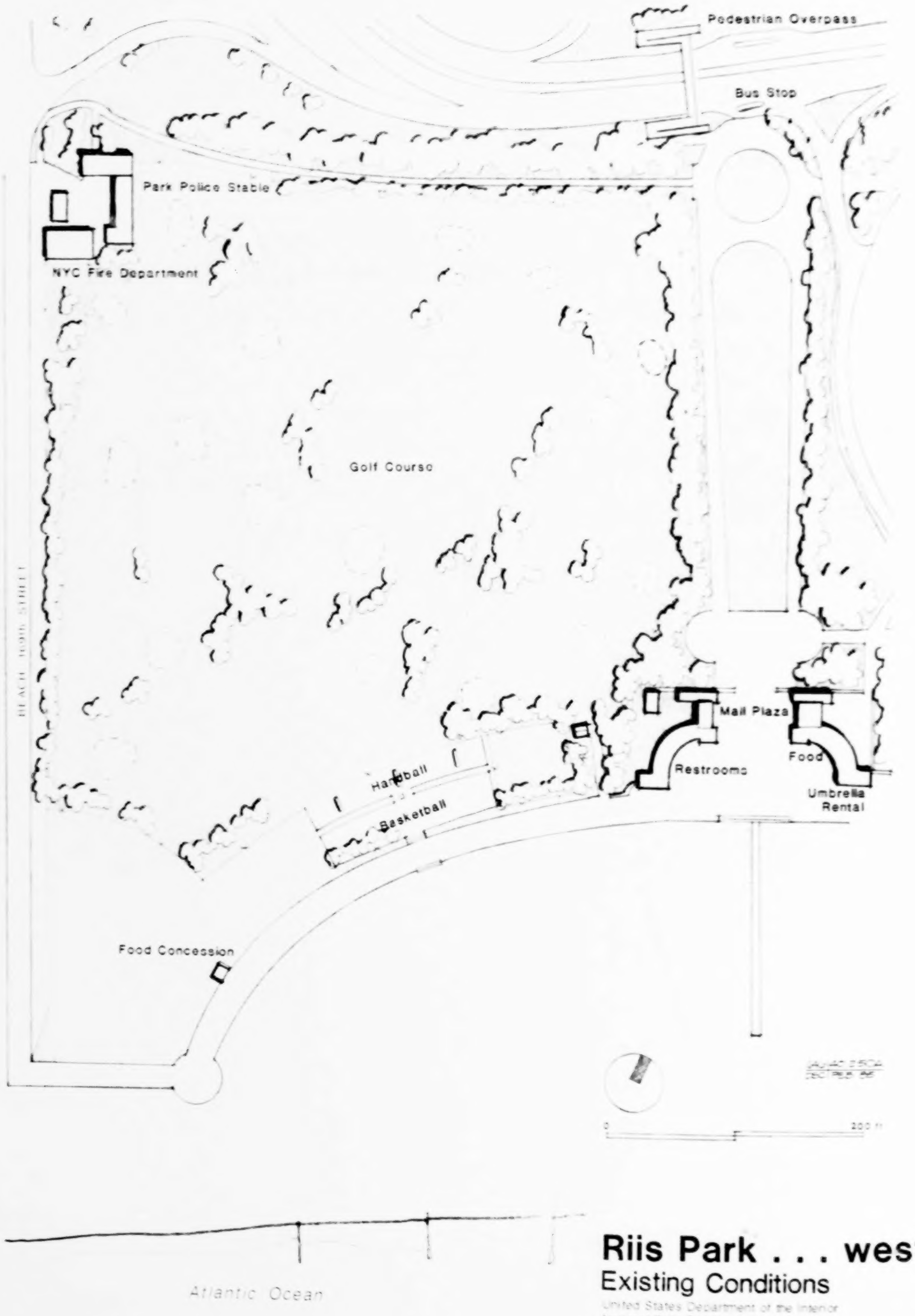
TRANSVERSE SECTION

Scale 1/16" = 1'-0"

Riis Park . . . bathhouse

Proposal for Roof Addition

United States Department of the Interior
National Park Service


Pedestrian Overpass
Bus Stop
Park Police Stable
NYC Fire Department
Golf Course
BEACH 169th STREET
Mall Plaza
Restrooms
Food
Umbrella Rental
Handball
Basketball
Food Concession
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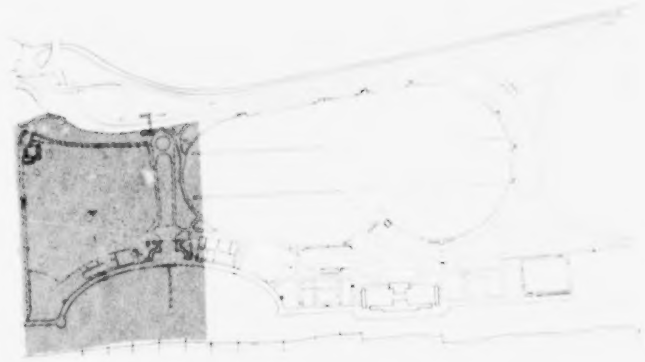
Atlantic Ocean

Riis Park . . . west

Existing Conditions

United States Department of the Interior
National Park Service

Riis Park . . . west

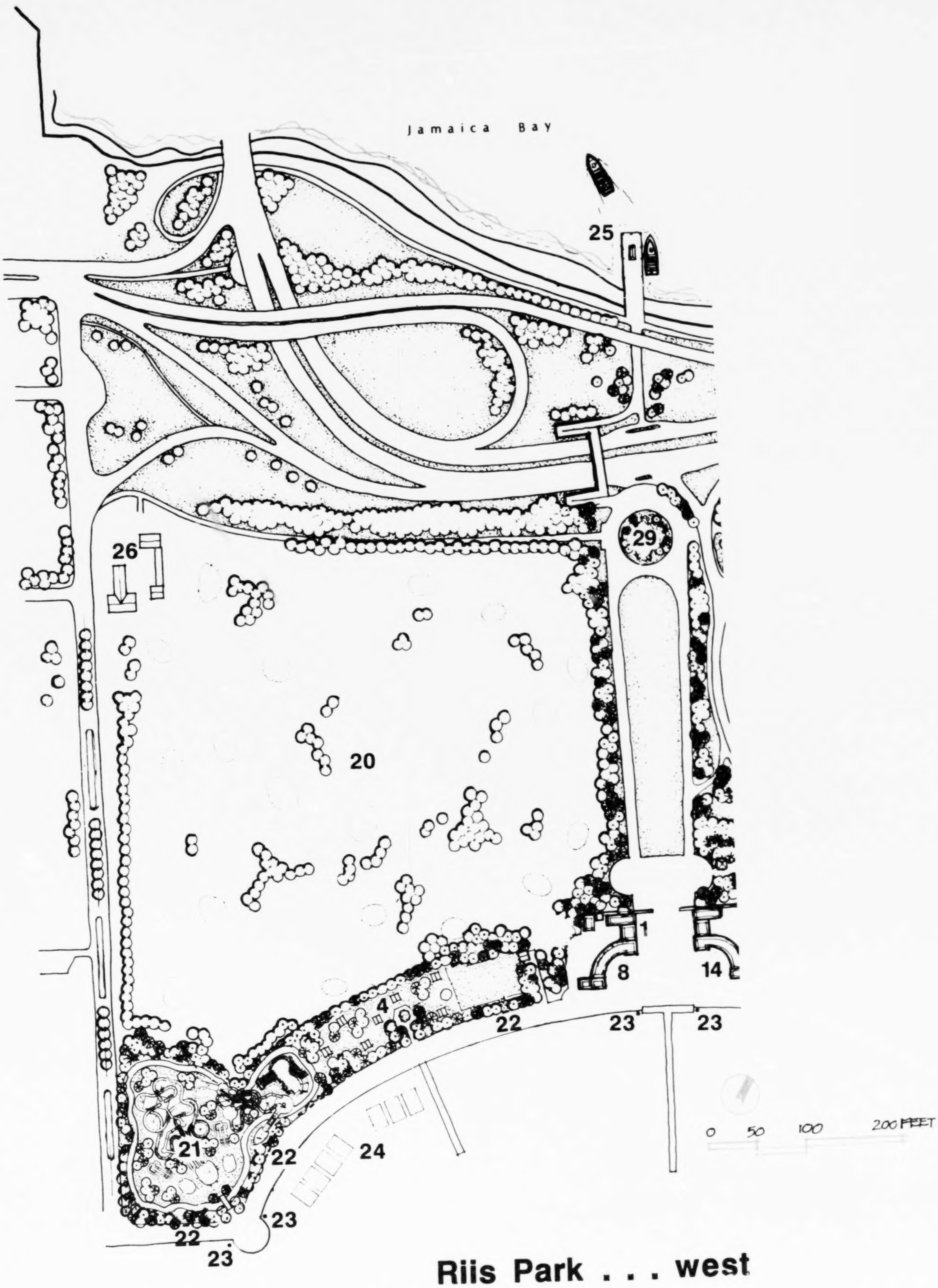


Development and Use Concepts. Significant changes would occur in this area, including the development of an aquatic park and a group picnic area for beach users. The historic mall buildings would also be rehabilitated. Throughout the site, trees and shrubs tolerant of local conditions would be planted to provide shade and shelter from the wind. The stables would be converted to the concessioner's maintenance facility and the Park Police unit would be moved to new stables at Fort Tilden.

Specific Development and Rehabilitation Actions

1	Interpretive Center*
4	Group Picnic Area
8	Public Restrooms*
14	Food Concession
20	Golf Course
21	Aquatic Park
22	Seating*
23	Shower Points*
24	Volleyball Courts
25	Ferry Dock
26	Maintenance Facility
29	Ornamental Plantings*

Development and Maintenance Costs. The concessioner would make the necessary investments to accomplish these actions, except for those marked with asterisks, which would be rehabilitated or developed by the Park Service. A portion of the income from fee activities within the park would be used to pay for maintenance.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Riis Park . . . west

Proposal

United States Department of the Interior
National Park Service

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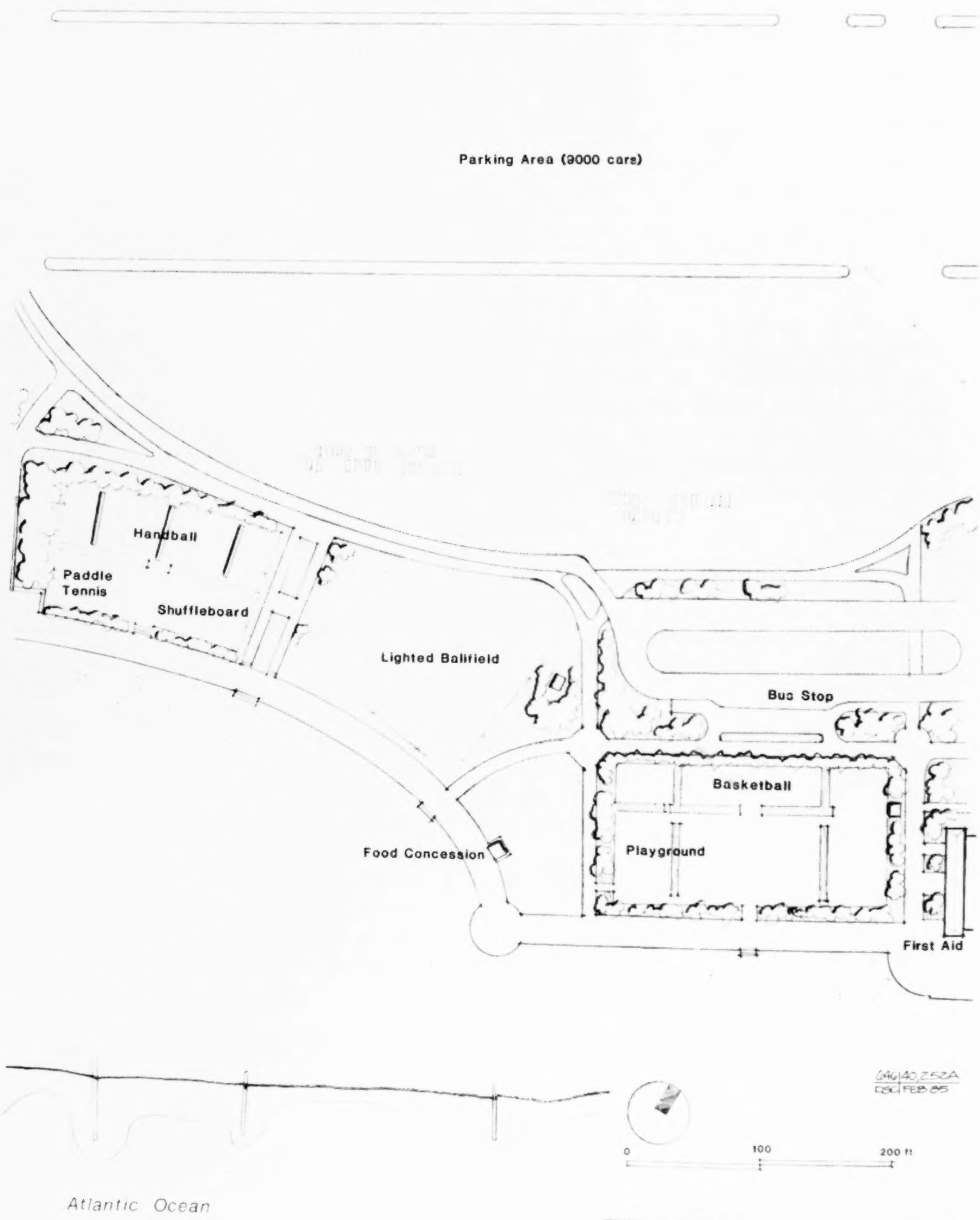
Parking Area (9000 cars)
Handball
Paddle Tennis
Shuffleboard
Lighted Ballfield
Bus Stop
Basketball
Playground
Food Concession
First Aid
646|40,252A
DSC|FEB 85
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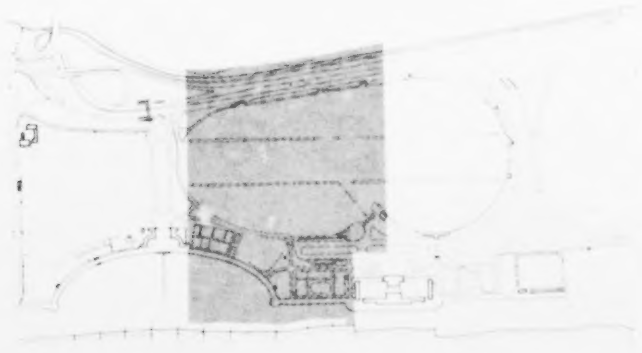
200 ft
Atlantic Ocean

Riis Park . . . central
Existing Conditions

United States Department of the Interior
National Park Service

Riis Park . . . central

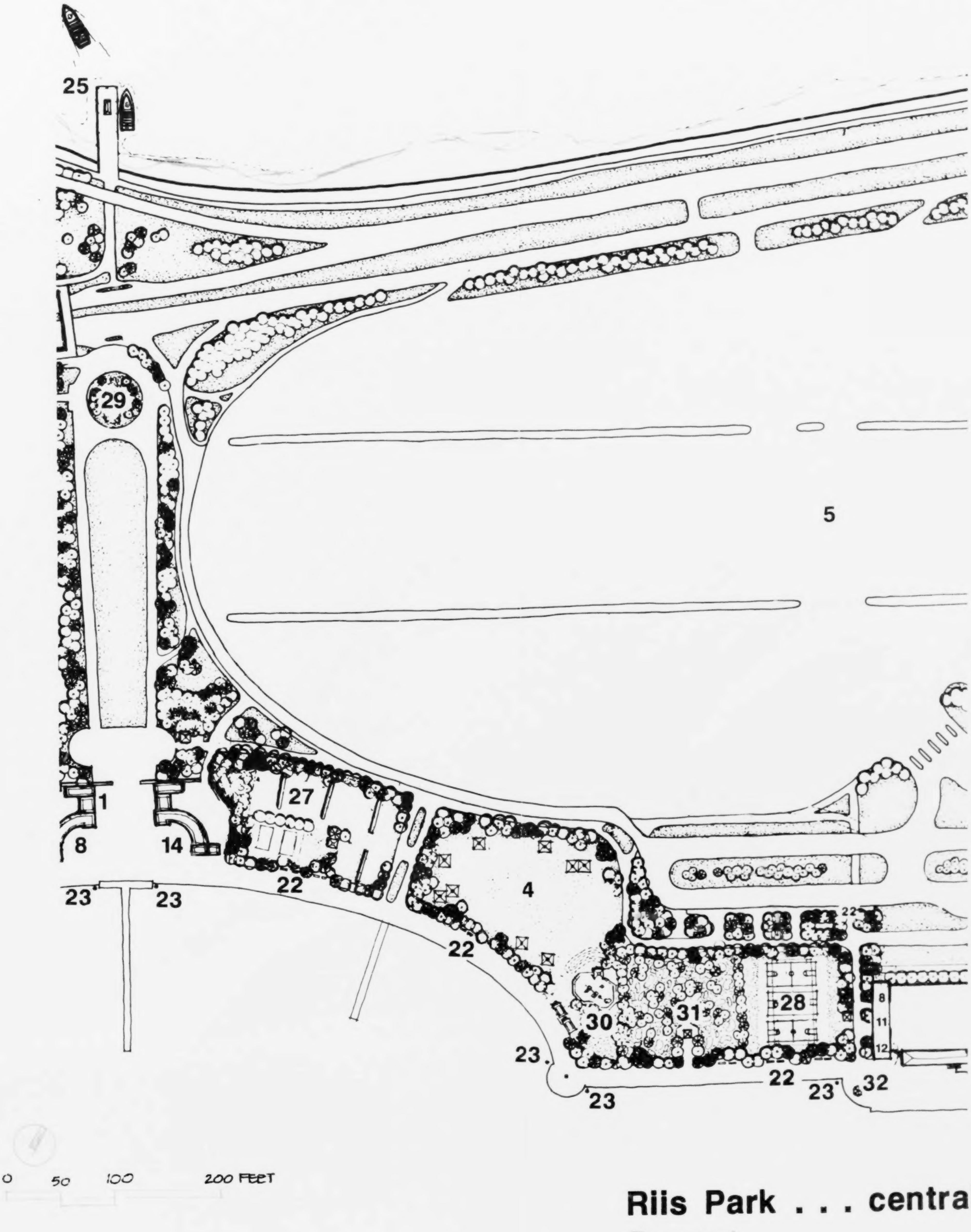


Development and Use Concepts. Activity areas would be reorganized to provide more space for popular activities and to make currently unused areas more attractive and usable. The back-beach area would be redesigned, opening up more picnic space – always at a premium at Riis Park – and offering attractive alternatives to picnicking under the low branches of the ornamental trees and shrubs that line the walkways. The ballfield would be relocated to Fort Tilden and the area (4) converted for picnicking and playfield use, including shelters, grills, drinking water, and shade trees. The handball, paddleball, and paddle-tennis courts would be rehabilitated, and a new miniature golf course developed. The basketball courts would be refurbished to allow their conversion to a winter ice-skating rink. The main bus stop area would be reorganized and shade added, and informational signs would be installed at major pedestrian intersections to make it easier to inform park users about available facilities, activities, and events. More seating would be provided along the boardwalk and near picnic and play areas. A children's play area would be established (30), with play equipment, landforms, a water feature, and shade.

Specific Development and Rehabilitation Actions

1	Interpretive Center*
4	Group Picnic Area*
5	Parking Field
8	Public Restrooms (bathhouse)
11	Rangers
12	Lifeguards
14	Food Concession
22	Seating*
23	Shower Points*
25	Ferry Dock
27	Court Games*
28	Basketball/Ice Rink
30	Children's Playground*
31	Miniature Golf
32	Information Kiosk*

Development and Maintenance Costs. The concessioner would make the necessary investments to accomplish these actions, except for those marked with asterisks, which would be rehabilitated or developed by the Park Service. A portion of the income from fee activities within the park would be used to pay for maintenance.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Riis Park . . . central

Proposal

United States Department of the Interior
National Park Service

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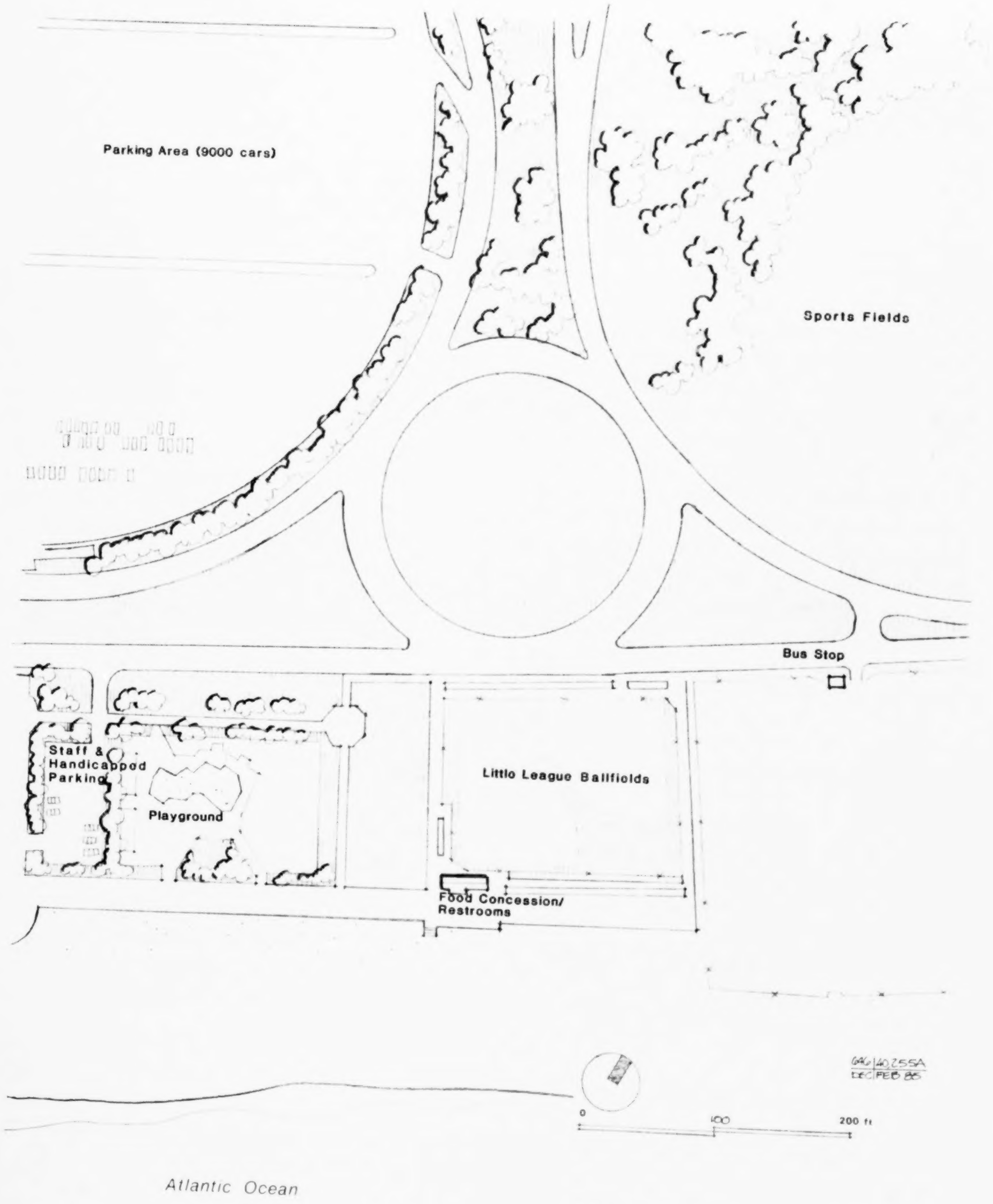
Parking Area (9000 cars)
Sports Fields
Bus Stop
Staff & Handicapped Parking
Playground
Little League Ballfields
Food Concession/ Restrooms
646 | 40,255A
DEC | FEB 85
0
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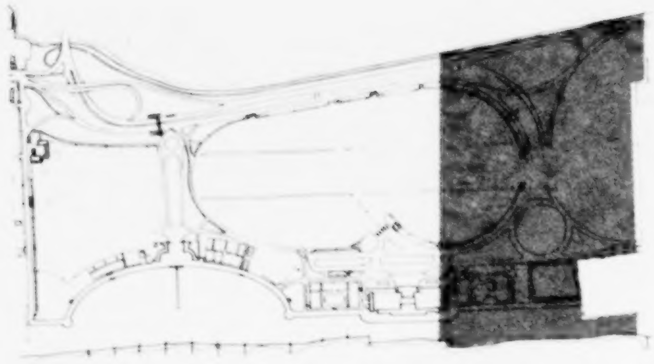
200 ft
Atlantic Ocean

Riis Park . . . east

Existing Conditions

United States Department of the Interior
National Park Service

Riis Park . . . east



Development and Use Concepts. The changes proposed in this area are intended to build on what currently exists and to improve the quality of available space. The playground (34) would be enlarged and made more challenging. Modifications would include a water spray, earth mounds, and shaded sand play area. The little league fields would be rehabilitated, and a batting cage added. Shelters and shade trees would be added to make the entire area an attractive site for families. Small modifications would be made (providing alcoves for gathering along the boardwalk and adding tables and chairs near the concession stand) to make this area more comfortable and suitable to the needs of park users in this area. Outside showers (23) would be installed for washing off sand at beach entry points. Unmanned informational kiosks (32) would be provided near the intersection of major entry walks and the boardwalk. The staff/handicap parking area (33) would be redesigned to permit emergency vehicle access to the boardwalk.

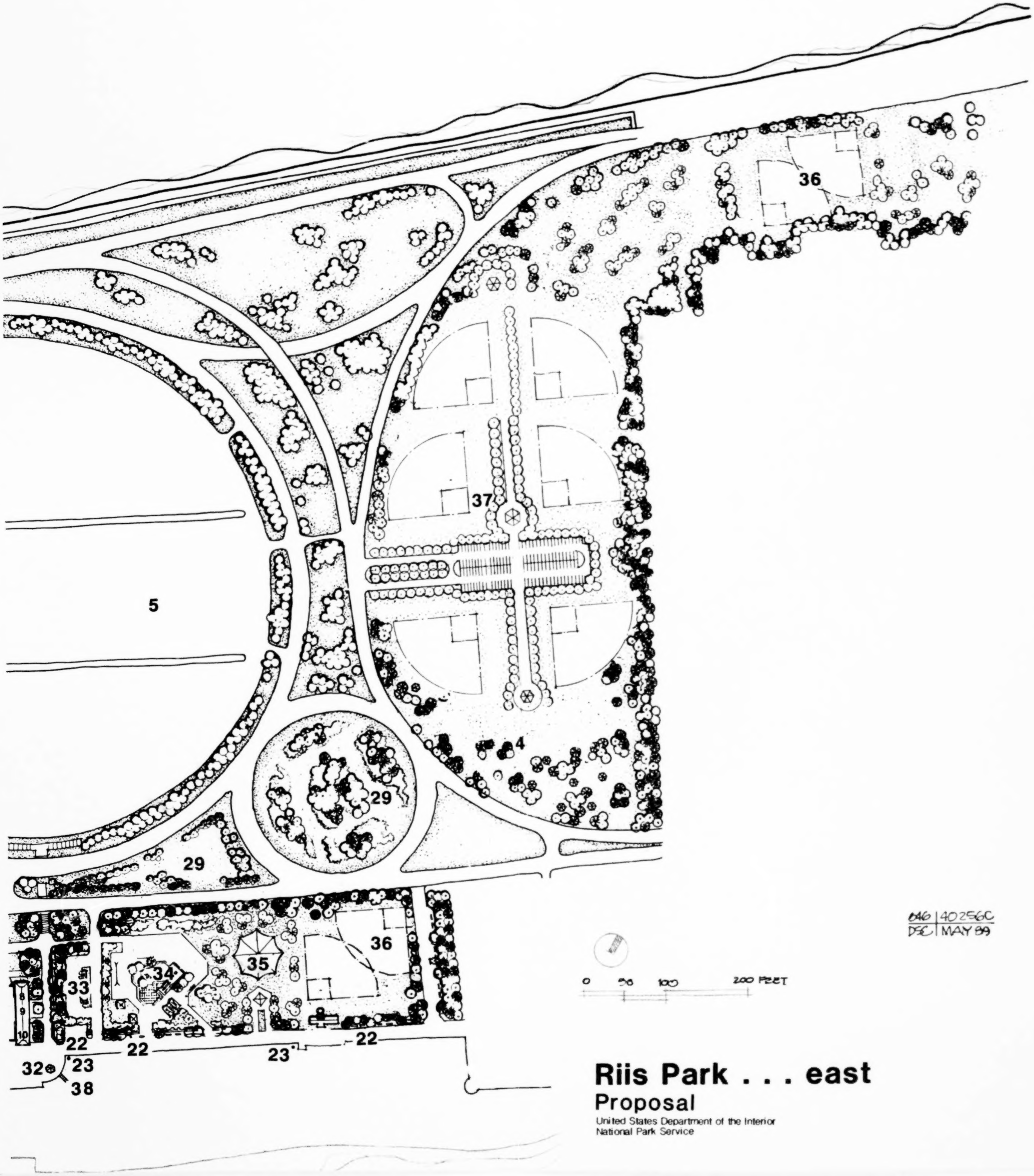
The open space east of the parking lot would be developed into the athletic complex and group picnicking area. Two new little league fields would be established at the northern end of this area for community use; these ballfields would replace the ones eliminated at the southern end.

The parking bays in the main Riis parking lot would be reoriented north-south to make pedestrian movement safer and simpler.

Specific Development and Rehabilitation Actions

5	Parking Field
8	Public Restrooms
9	Police
10	First Aid
22	Seating*
23	Shower Points*
29	Ornamental Plantings*
32	Information Kiosks*
33	Staff/Handicap Parking*
34	Adventure Playground*
35	Batting Cage
36	Little League Fields
37	Athletic Complex
38	Handicap Ramp*

Development and Maintenance Costs. The concessioner would make the necessary investment to accomplish these actions, except those marked with asterisks, which would be rehabilitated or developed by the Park Service. A portion of the income from the fee activities would be used to pay for continued maintenance of park improvements.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Riis Park . . . east

Proposal

United States Department of the Interior
National Park Service